

WHAT LESSONS CAN BE DRAWN FROM U.S. RIVERINE OPERATIONS
DURING THE VIETNAM WAR AS THE U.S. NAVY MOVES INTO
THE TWENTY-FIRST CENTURY?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by
DAVID J. SPANGLER, LCDR, USN
B.S., U.S. Naval Academy, Annapolis, Maryland, 1981

Fort Leavenworth, Kansas
1995

Approved for public release; distribution is unlimited.

19951011 042

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 2 June 1995		3. REPORT TYPE AND DATES COVERED Master's Thesis, 2 Aug 94 - 2 Jun 95
4. TITLE AND SUBTITLE What Lessons Can be Drawn From U.S. Riverine Operations During the Vietnam War as the U.S. Navy Moves Into the Twenty-First Century?			5. FUNDING NUMBERS	
6. AUTHOR(S) Lieutenant Commander David J. Spangler, U.S. Navy				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, Kansas 66027-6900			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution is unlimited.			12b. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 words) This study examines U.S. riverine force operations in the Vietnam War to determine why the force was established, how and why it evolved, and what significance it held for the war as a whole. This study begins with Operation Game Warden, continues through Mobile Riverine Force operations, and ends with the completion of the SEALORDS campaign. The impetus for this research arose from the current debate in Washington as to whether or not the U.S. military has a real need for riverine forces and if those forces should be "stood up" today. Looking back through history gives an opportunity to view past riverine warfare conducted by the American military and determine the contributions such operations have made to the overall conduct of wars. This study shows that riverine operations have been crucial to success in certain environments today in the past and points to their possible use in similar environments today. This study measures the effect of U.S. riverine operations in Vietnam and evaluates the contribution this type of force made to our war effort in that environment. This study promotes the use of Task Force 194, which conducted the SEALORDS campaign, as the model for establishing U.S. riverine forces today. This study points out that the nucleus of a riverine force must be maintained, doctrine modernized, and crew currency maintained in order to have any reasonable expectation for success at the outset of future riverine conflicts.				
14. SUBJECT TERMS Vietnam, Riverine, Sealords, Game Warden, Pacification, TF 194, Navy, Mobile Riverine Force, Littoral, Brown Water, Zumwalt, Mekong Delta, TF 116, TF 117			15. NUMBER OF PAGES 181	
17. SECURITY CLASSIFICATION OF REPORT Unclassified			16. PRICE CODE	
18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified		20. LIMITATION OF ABSTRACT Unlimited

GENERAL INSTRUCTIONS FOR COMPLETING SF 298

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to *stay within the lines* to meet optical scanning requirements.

Block 1. Agency Use Only (Leave blank).

Block 2. Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

Block 3. Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

Block 4. Title and Subtitle. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.

Block 5. Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C - Contract	PR - Project
G - Grant	TA - Task
PE - Program Element	WU - Work Unit Accession No.

Block 6. Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

Block 7. Performing Organization Name(s) and Address(es). Self-explanatory.

Block 8. Performing Organization Report Number. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

Block 9. Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.

Block 10. Sponsoring/Monitoring Agency Report Number. (If known)

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

Block 12a. Distribution/Availability Statement. Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

DOD - See DoDD 5230.24, "Distribution Statements on Technical Documents."

DOE - See authorities.

NASA - See Handbook NHB 2200.2.

NTIS - Leave blank.

Block 12b. Distribution Code.

DOD - Leave blank.

DOE - Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.

NASA - Leave blank.

NTIS - Leave blank.

Block 13. Abstract. Include a brief (*Maximum 200 words*) factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phrases identifying major subjects in the report.

Block 15. Number of Pages. Enter the total number of pages.

Block 16. Price Code. Enter appropriate price code (*NTIS only*).

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

WHAT LESSONS CAN BE DRAWN FROM U.S. RIVERINE OPERATIONS
DURING THE VIETNAM WAR AS THE U.S. NAVY MOVES INTO
THE TWENTY-FIRST CENTURY?

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE

by
DAVID J. SPANGLER, LCDR, USN
B.S., U.S. Naval Academy, Annapolis, Maryland, 1981

Fort Leavenworth, Kansas
1995

Approved for public release; distribution is unlimited.

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Lieutenant Commander David Joseph Spangler

Thesis Title: What Lessons Can Be Drawn From U.S. Riverine Operations During The Vietnam War As We Move Into The Twenty-First Century?

Approved by:

Gary J. Bjarge, Thesis Committee Chairman
Gary J. Bjarge, Ph.D.

Thom W. Ford, Member
Captain Thom W. Ford, M.A.

John D. Vosilus, Member
Lieutenant Colonel John D. Vosilus, B.S.

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Accepted this 2d day of June 1995 by:

Philip J. Brookes, Director, Graduate Degree Programs
Philip J. Brookes, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

WHAT LESSONS CAN BE DRAWN FROM U.S. RIVERINE OPERATIONS DURING THE VIETNAM WAR AS THE U.S. NAVY MOVES INTO THE TWENTY-FIRST CENTURY by LCDR David J. Spangler, USN, 170 pages.

This study examines U.S. riverine force operations in the Vietnam War to determine why the force was established, how and why it evolved, and what significance it held for the war as a whole. This study begins with Operation Game Warden, continues through Mobile Riverine Force operations, and ends with the completion of the SEALORDS campaign. The impetus for this research arose from the current debate in Washington as to whether or not the U.S. military has a real need for riverine forces and if those forces should be "stood up" today.

Looking back through history gives an opportunity to view past riverine warfare conducted by the American military and determine the contributions such operations have made to the overall conduct of wars. This study shows that riverine operations have been crucial to success in certain environments in the past and points to their possible use in similar environments today. This study measures the effect of U.S. riverine operations in Vietnam and evaluates the contribution this type of force made to our war effort in that environment.

This study promotes the use of Task Force 194, which conducted the SEALORDS campaign, as the model for establishing U.S. riverine forces today. This study points out that the nucleus of a riverine force must be maintained, doctrine modernized, and crew currency maintained in order to have any reasonable expectation for success at the outset of future riverine conflicts.

ACKNOWLEDGEMENTS

Many thanks to Dr. G. J. Bjorge, Capt T. W. Ford, and LTC J. D. Vosilus for their patience, expertise, and professional guidance during this project.

The impetus to undertake this study came from my wife, Cyd; her love, support, and sacrifice despite extreme personal hardship was not only crucial to completion of this endeavor, but truly inspirational to all who observed her.

I continue to be grateful for a supportive family, the faith they share, and instilling the determination to complete what has been started no matter what the odds or adversity.

And finally, perhaps the most important blessing of all, I am thankful for the calming hand of God, His uplifting Spirit, and His timeless promise to provide whatever is necessary if we only trust in Him.

"If ye shall ask anything in my name, I will do it."

John 14.14

TABLE OF CONTENTS

	<u>Page</u>
APPROVAL PAGE	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
LIST OF ILLUSTRATIONS	vi
LIST OF ABBREVIATIONS	vii
CHAPTER	
1. INTRODUCTION	1
2. CREATION OF THE RIVERINE FORCE	16
3. RIVERINE FORCE EVOLUTION	36
4. RIVERINE FORCE MATURITY	72
5. IMPLICATIONS FOR THE TWENTY-FIRST CENTURY	131
ILLUSTRATIONS	144
BIBLIOGRAPHY	161
INITIAL DISTRIBUTION LIST	170

LIST OF ILLUSTRATIONS

Figure	Page
1. Comparison of Historical Riverine Operational Aspects Salient to the Vietnam Experience.	7
2. South Vietnam Province and Corps Tactical Zone Boundaries, <u>Monthly Historical Summary, December 1966, 1967.</u>	145
3. The Mekong Delta, <u>Vietnam Studies: Riverine Operations</u> <u>1966-1969, 1973.</u>	146
4. Mainland Southeast Asia, <u>By Sea, Air, and Land: An</u> <u>Illustrated History of the U.S. Navy and the War in</u> <u>Southeast Asia, 1994</u>	147
5. Enemy Logistics Flow From Cambodia Into South Vietnam, 1966, "Game Warden," 1976.	148
6. PBR Bases and River Sections, 1966, "Game Warden," 1976 . .	149
7. Game Warden Patrol Areas, 1968, "Game Warden," 1976	150
8. Suspected IV Corps Supply Routes, "Game Warden," 1976 . . .	151
9. Game Warden Patrol Areas at the End of 1967, "Game Warden," 1976	152
10. Command Structure of the MRF and Riverine Assault Squadrons, "Riverine Warfare: How the Services are Meeting the Delta Test," 1968.	53
11. Selected SEALORDS Operations, <u>Brown Water, Black Berets:</u> <u>Coastal and Riverine Warfare in Vietnam, 1988.</u>	153
12. The SEALORDS Operational Theater, <u>By Sea, Air, and Land:</u> <u>An Illustrated History of the U.S. Navy and the War in</u> <u>Southeast Asia, 1994</u>	154
13. Tran Hung Dao Barrier, <u>An Analysis of Interdiction Barrier</u> <u>Operations and Effectiveness on SEALORDS Operations</u> <u>Tran Hung Dao, Barrier Reef and Giant Slingshot, 1970.</u> . .	155
14. Giant Slingshot Barrier, <u>An Analysis of Interdiction</u>	

	<u>Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot, 1970.</u>	156
15.	<u>Barrier Reef Barrier, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot, 1970. .</u>	157
16.	<u>Enemy Resupply in IV CTZ, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot, 1970.</u>	158
17.	<u>Operation Deep Channel Waterways, "Operation Deep Channel," 1971</u>	159
18.	<u>Hamlet Evaluation System Results, Lost Victory: A Firsthand Account of America's Sixteen-Year Involvement in Vietnam, 1989</u>	160

LIST OF ABBREVIATIONS

ACTOV	Accelerated Turnover to the Vietnamese
AO	Area of Operations
APB	Self-Propelled Barracks Ship
APC	Armored Personnel Carrier
APL	Non-Self-Propelled Barracks Ship
ARL	Landing Craft Repair Ship
ARVN	Army of the Republic of Vietnam
ASPB	Assault Support and Patrol Boat
ATC	Armored Troop Carrier
ATSB	Advanced Tactical Support Base
CAS	Close Air Support
CCB	Command Communications Boat
CIA	Central Intelligence Agency
CIDG	Civilian Irregular Defense Group
CNO	Chief of Naval Operations
COMNAVFORV	Commander Naval Forces Vietnam
COMUSMACV	Commander U.S. Military Assistance Command Vietnam
CTG	Commander Task Group
CTZ	Corps Tactical Zone
Dinassaut	Divisions navales d'assaut (naval assault divisions)
DMZ	Demilitarized Zone

EOD	Explosive Ordnance Disposal
GVN	Government of Vietnam
HAL	Helicopter, Attack, Light
HES	Hamlet Evaluation System
Hoi Chanh	Former Viet Cong who have rallied to the South Vietnamese
HSB	High Speed Boat
IFS	Inshore Fire Support Ship
KIA	Killed in Action
LATAM	Latin America
LCM	Landing Craft, Mechanized
LCPL	Landing Craft, Personnel, Large
LOC	Line of Communication
LSD	Landing Ship, Dock
LST	Landing Ship, Tank
MACV	Military Assistance Command Vietnam
MATSB	Mobile Advanced Tactical Support Base
MEU	Marine Expeditionary Unit
MRB	Mobile Riverine Base
MRF	Mobile Riverine Force
MSB	Minesweeping Boat
MSD	Minesweeping Drone
NOD	Night Observation Device
NSA	Naval Support Activity
NVA	North Vietnamese Army
OJT	On-The-Job Training
OPLAN	Operation Plan

PACV	Patrol Air Cushion Vehicle
PBR	Patrol Boat, River
PC	Patrol Craft
PCF	Patrol Craft, Fast (Swift Boat)
PF	Popular (Provisional) Force
PG	Patrol Gunboat
PRU	Provincial Reconnaissance Unit
PSYOPS	Psychological Operations
PW	Prisoner Of War
RAC	Riverine Assault Craft
RAG	Rive Assault Group
RAID	River Assault and Interdiction Division
RAS	Riverine Assault Squadron
RF	Regional Force
RID	River Interdiction Division
RIVDIV	Riverine Division
ROE	Rules of Engagement
RPG	River Patrol Group Rocket Propelled Grenade
RRC	Rigid Raid Craft
RSSZ	Rung Sat Special Zone
SA	Senior Advisor
SBU	Special Boat Unit
SEAL	Sea, Air, and Land (USN Special Forces)
SEALORDS	Southeast Asia Lake, Ocean, River, and Delta Strategy
SVN	South Vietnam
TF	Task Force

TG	Task Group
TOC	Tactical Operations Center
UDT	Underwater Demolition Team
U.S.	United States
USAID	U.S. Agency for International Development
USN	United States Navy
VAL	Fixed Wing, Attack, Light
VC	Viet Cong
VNMC	Vietnamese Marine Corps
VNN	Vietnamese Navy
WBGD	Waterborne Guard Post
WIA	Wounded in Action
WPB	Patrol Boat (U.S. Coast Guard 82-foot Cutter)

CHAPTER 1

INTRODUCTION, BACKGROUND, AND SETTING THE STAGE

Introduction

This study examines U.S. riverine force operations in the Vietnam War to determine why the force was established, how and why it evolved, and what significance it held for the war as a whole. The impetus for this research arose from the current debate in Washington as to whether or not the U.S. military has a real need for riverine forces and if those forces should be "stood up" today. Looking back through history gives an opportunity to view past riverine warfare conducted by the American military and determine the contributions such operations have made to the overall conduct of wars. If riverine operations are found to have been crucial to success in certain environments in the past, then it is possible that they would be successful in similar environments today. This study seeks to measure the effect of U.S. riverine operations in Vietnam and evaluate the contribution this type of force made to our war effort in that environment.

The first step of this study was a literature review designed to determine how much material already existed which analyzed the American historical riverine experience. The search showed that little literature of an analytical nature existed, especially in regard to the Vietnam War, where discussions of riverine operations were usually overshadowed by the larger land campaigns they supported. It became

obvious that a thorough historical study was needed if the value of riverine forces in Vietnam was to be understood.

United States riverine forces in Vietnam evolved as the war continued and studying that evolution and the factors that drove it is the central organizing principle of this study. This approach makes it possible to address several key issues simultaneously. Identifying the factors that drove the evolution will provide an environmental analysis in many areas including terrain, politics, and operations in a foreign environment. Looking at the evolutionary process itself highlights successes or failures, and shows how they drove the evolution of the force and changes in its employment. The evolutionary process also provides a way to assess the contribution that riverine forces were making to the war as a whole and how higher commands were assessing their utility. Operational requirements and results were major factors determining the allocation of resources.

This paper is divided into five chapters. The first chapter provides the introduction, historical riverine experience, and the initial Naval mission objective in Vietnam. Chapter 2 discusses the creation of the riverine force, the theater strategic picture, initial enemy and Allied force arrays, the time line of major operations, and the notable elements of the riverine force in its infancy. Chapter 3 takes a solid look at riverine force evolution through the adolescent state exhibited in Operation Game Warden and the Mobile Riverine Force (MRF). Chapter 4 examines the mature riverine force in Operation SEALORDS, analyzes the evolutionary forces that produced this ultimate development, and discusses whether this force was successful or not.

The final chapter provides conclusions about the contributions riverine force operations made to the overall Vietnam War effort, and comments as to whether or not the United States military needs riverine forces today.

Primary and Subordinate Research Questions

The research controlling idea, stated as a question is: "What lessons can be drawn from U.S. riverine operations during the Vietnam War as the U.S. Navy moves into the twenty-first century?" To answer this main research question, it is necessary to analyze the evolution of the force and also the forces that caused that evolution because this will bring to the surface significant lessons being learned at the time the force existed. This objective establishes two subordinate questions: "What were the internal factors and what were the external factors that were pushing changes in the force?" The question pertaining to internal factors has to address the ad hoc initial array of forces, support, tactics development, tactical lessons learned, previous experience and the subordinate questions that arose from each of them. The question regarding external factors has to address: the strategic mission, the change in the threat, technological advances, host nation environmental pressures, mission creep, South Vietnamese capabilities and growth, and the subordinate questions that arise from each of them.

Definitions

The term MISSION includes the specified and implied tasks to be carried out by the combatant unit. RIVERINE FORCES are those combatant

units assigned specifically to designated riverine operations to include Navy vessels, logistical support and organic personnel; Army ground units, logistical support and organic equipment, Special Forces and Marine units, logistical support, and organic equipment; and close air support aviation assets assigned to Task Force commanders for primary mission tasking.

Limitations and Delimitations

Official documents providing specific guidance to local units are virtually nonexistent. Currently the Naval Historical Center, who has custody of these documents, is understaffed and has been unable to catalog any significant amount of Vietnam War material. Most of the material from this era literally resides in boxes that would require weeks of time and Temporary Assigned Duty (TAD) funding to sift through, neither of which is available. In addition, many missions were passed down in verbal briefings to those units who were expected to carry them out. As a result, it has been impossible to accurately and consistently pinpoint specified and implied tasks at the individual unit level and to verify that they were understood and supported. A very limited number of oral histories and personal documents written by individuals who served in riverine units do exist, but correlation to provide unit mission verification is spotty. Sorting out fact from personal bias has been a difficult task. Higher level directives, such as Task Force Operations Orders (TF OPORDs), have been helpful, but deficiencies in communications skills may have meant that higher level mission tasking was not accurately passed down to the units themselves in the verbal

briefings. Second-hand sources were required to fill in gaps in first hand information and try to verify otherwise unverifiable data.

Due to the problems inherent in providing accurate accounting during the "fog of war," guerilla tactics utilized by the enemy, and the apparent inflation of casualty figures undertaken to placate the public in the press propaganda war that was raging in the United States during this period, the accuracy of historical data is suspect in some cases. Historical data and military documents that were not utilized to gauge success or failure of operations, such as operations orders or policy statements, seemed to be generally accurate. Careful source analysis and multi-source verification was critical and limited the impact of possibly inaccurate sources.

Delimitations to this study involve the type of forces utilized, the type of operations conducted, and the time period covered. When looking at the riverine campaign in the Vietnam War, the operations were often combined in nature with Vietnamese Navy, Army, and Marine units participating. In providing a relevant assessment of American riverine force viability in future unilateral and bilateral operations, this study primarily looks at U.S. riverine forces, but does address the Vietnamese presence in some cases, especially when examining environmental pressures and external forces.

The type of operations that were considered were purely inland riverine operations. Even though the U.S. Navy participated in air superiority, interdiction and coastal blockade operations as an important part of the Vietnam War, only those operations conducted on inland rivers, lakes, and canals in support of Operation Game Warden,

Mobile Riverine Force (MRF) operations, and Operation SEALORDS were addressed. These three campaigns encompass the majority of U.S. riverine operations conducted in the theater and provide a good cross section for analyzing the evolutionary process, the factors driving that process, and the overall contribution of these forces to the U.S. war effort.

The time period that was chosen begins on December 1965 with the beginning of Operation Game Warden and ends on June 1970 with the deactivation of the Operation SEALORDS campaign and the assumption of those missions by the South Vietnamese. Operation Game Warden was selected as the starting point because it is the first instance of a dedicated riverine force being put together under a separate Task Force Commander for specific riverine mission tasking. It also provides a good example of a newly established force that was lacking operational experience in the riverine environment, had not developed effective tactics, endured shortfalls in logistical and basing support, and operated with a relatively sparse allocation of initial assets. Operation SEALORDS was chosen as the culmination point of the study because its conclusion was quickly followed by the remainder of the Accelerated Turnover to the Vietnamese (ACTOV) program which handed over both U.S. equipment and operational responsibilities. Operation SEALORDS was also an excellent example of a mature force replete with riverine operational experience, proven tactics, sound logistics support and basing, and suitable asset allocation. It was the capstone to U.S. strategy in the Delta.

Background

Riverine operations in Vietnam were not a unique development in U.S. military history. Such forces have been an integral part of virtually every major conflict our country has been involved in. Even when separated by many years, riverine campaigns bear striking resemblance to each other in the ad hoc manner in which the initial force was assembled and evolved, the tactics that were developed, the type of enemy encountered, and the operational environment. American riverine operations, while not always successful, typically made important contributions to the campaigns they were part of. Figure 1 shows earlier riverine experiences that could have provided some lessons

CAMPAIGNS	Joint	Special Craft	Jungle/Hot Environment	Foreign Soil/Water	Large Scale	Guerilla Enemy	Mining Encountered
Lake Champlain		X					
War of 1812							
Caribbean Pirates			X	X		X	
Florida Everglades	X		X		X-	X	
Mexican War				X		X	
Civil War	X	X			X		X
Philippine Insurrection			X	X		X	
Yangtze River Patrol				X		X	
WW II	X	X		X			

Fig. 1. Comparison of Historical Riverine Operational Aspects Salient to the Vietnam Experience.

learned for Vietnam operations because they all had at least one of the following characteristics: involved joint forces, a jungle/hot environment, foreign waterways/soil, the enemy's use of guerilla warfare and mines, the creation of special watercraft, or were large scale operations.

Setting The Stage

In setting the stage for a study of Vietnam riverine operations, the environment that American Riverine Forces operated in must be clearly described at the outset. This environment was shaped by the physical Area of Operations (AO), terrain, political forces present in the region, and overall Naval mission objectives.

Area of Operations and Terrain

When the Army and Navy planners divided South Vietnam (SVN) into manageable areas for command and control, the Mekong Delta was designated the IV Corps Tactical Zone (CTZ) (fig. 2). The Delta stretches from the Gulf of Thailand in the south to the Cambodian border in the north, and from Saigon in the east to the Gulf of Thailand in the west. This rich agricultural area encompasses approximately 25 percent of the total land area of South Vietnam, and is inhabited by more than 50 percent of the country's population. The Mekong and Bassac rivers run generally southeast from Cambodia to the Gulf of Thailand, and the entire Delta contains a network of countless smaller streams and canals. The IV CTZ contained sixteen provinces and the particular areas of interest called the Plain of Reeds, the U Minh Forest, and the Ca Mau Peninsula. As expected from an area of approximately 40,000 square

kilometers, populated with an estimated eight million people, it contains a myriad of small villages and includes the cities of Bac Lieu, Ca Mau, Can Tho, Chau Doc, Ha Tien, My Tho, Nam Can, Rach Gia, Sa Dec, Vinh Long. It also contained "the huge U.S. base called Dong Tam (United Hearts and Minds) that General Westmoreland ordered dredged from the Mekong Mud."¹

The Mekong Delta was a formidable area for military operations. It was very difficult to maneuver land forces there because the area, being ideal for rice production, had poor drainage and the surface was subject to extensive and prolonged water immersion. There was only one major hard surface road, Route 4, so land Lines of Communication (LOCs) were very limited and not capable of supporting significant military operations (fig. 3). Offsetting the poor land lines of communication was a well developed inland waterway system consisting of "3,000 nautical miles of rivers, canals, and smaller streams."² The extensive natural network of smaller rivers and creeks was a result of continual improvement throughout history by the Vietnamese local population, and "there is evidence that the inhabitants began to improve natural drainage as early as 800 A.D. . . . [resulting in] about 4,000 kilometers of land-cut canals of varying width and depth. . . ."³ Dense vegetation, abruptly winding waterways, and the steep banks of the rivers clearly favored guerilla operations, in fact, "foliage is commonly so thick that troops 3 feet apart lose sight of one another."⁴ This vegetation and the large number of coconut groves restricted observation in many instances from both ground and air. The flatness of the area required extremely precise aim and artillery usage to not

endanger other friendly forces. The small percentage of dry land between waterways, the large area of inundated land surface, and the thick jungle environment made it very difficult for conventional forces to operate effectively. Adding to the dangers of small craft operations against a determined guerilla force were "floating vegetation and heavily silted waters" that concealed floating or sunken mines.⁵ These navigation hazards were compounded in some areas where tides in these waterways were so extreme that they often changed the direction that the river flowed.⁶ In addition to all these problems, the area was subject to high temperatures and high humidity.

Political Forces

The complexities of conducting military operations under a foreign command structure, by such a culturally divergent coalition as the United States and South Vietnam (SVN), are so perplexing and ponderous that it almost deserves writing an entire book dedicated to its unraveling. As it stands, this study briefly paints the political picture facing American Riverine Forces operating in South Vietnam.

The failure of the South Vietnamese military to maintain control of the Mekong Delta was unfortunate considering the strategic importance of that area. South Vietnamese government control of much of the region was tenuous at best, since during the early 1960s the Viet Cong (VC) in southern SVN had successfully undermined the SVN government's attempts to develop a sense of nationalism and loyalty among the population. A U.S. government study published in 1976 recognized that when the United States entered the theater, much of the southern half was under VC control.⁷ The Mekong Delta area was of strategic importance to the

Viet Cong as an area for obtaining needed food supplies, taxation monies from a significant number of the population living there, and a very advantageous environment for the basing and conduct of guerilla operations. The area was also of strategic importance to the South Vietnamese government, not only due to the large population contained within it but that the region was very rich agriculturally and had become "one of the world's most productive in rice growing. It is by far the most important region in South Vietnam."⁸

The capability of the South Vietnamese government to control the local population of the country as a whole was severely hampered by the dual Vietnamese command structure present within each CTZ. "The ARVN chain of command ran [layered] from the corps to . . . the battalion, etc. A second chain ran from the corps commander to province, district, village, and hamlet chiefs."⁹ The military and civilian chains of command were blurred and often harbored competing interests due in part to the fact that SVN had been in a state of martial law for so long. To further complicate the problem, many of the civilian posts were occupied by military officers and corruption ran rampant throughout both structures. The system "encouraged the rise of petty warlords who not infrequently placed the parochial interest . . . over the national interest. The structure also made it easy to organize plots, coups, and counter-coups against the central government."¹⁰

Not surprisingly, under these conditions the military had difficulty in training, sustaining and directing its forces throughout the country. Specifically, the system so paralyzed military effectiveness in the Delta that VC control and infiltration throughout

most of that region was virtually unchallenged. Extreme examples of this phenomenon were the Ca Mau Peninsula at the southwest tip of Vietnam, the northern Mekong Delta, and the Rung Sat Special Zone (RSSZ) south of Saigon which were all classed as Viet Cong (VC) sanctuaries where the VC retained complete control of the area. This inability of the SVN government to effectively challenge the VC became obvious to early American advisors and was published in official documents stating that "SVN military and civilian control of land, sea, and inland waterway routes was inadequate . . . [they] had inadequate resources with which to develop a significant capability for such patrols."¹¹ With the removal of French colonialism, the U.S. military advisory effort, which had begun in 1954, attempted to augment the SVN lack of training and military competence, and began the effort of recovering areas lost to the VC. As history shows, the goal proved unattainable.

Initial Naval Riverine Mission Objective

In his memoirs, General Westmoreland writes that prior to 1965 the Viet Cong "received an estimated 70 percent of their supplies by maritime infiltration." Few senior naval officers familiar with Vietnam operations at that time would agree. Admiral Blackburn's estimate of the amount of enemy supplies reaching South Vietnam by sea as opposed to that coming by way of the Ho Chi Minh Trail was about "one-fiftieth." "You couldn't prove these statistics at all," he [Blackburn] continued. "We were under such heat from the army because they had been such a miserable failure at stopping the influx of supplies down through Laos and down the countryside, and so they were hollering like hell that the navy wasn't doing its part. . . ."¹²

Commander R. L. Schreadley, Director of
COMNAVFORV Special History Project, Vietnam

This conflicting assessment of the magnitude of each enemy infiltration route directly resulted in the creation of the Naval coastal blockade of South Vietnam, Operation Market Time. The Navy's

assessment would prove correct, and infiltration through Cambodia would remain a major obstacle to Allied success in the Mekong Delta until the completion of an inland waterway blockade three years later in Operation SEALORDS. Despite the publication of the Bucklew Report on 15 February 1964, which acknowledged the infiltration of enemy men and supplies overland and through Cambodia, "the U.S. Military Assistance Command, Vietnam (MACV), [General Westmoreland] considered the sea to be the main infiltration resupply route to southern SVN."¹³ Captain Bucklew, Commander, Vietnam Delta Infiltration Study Group, further stated, "A sea quarantine would be futile in the absence of a companion effort to block inland infiltration routes."¹⁴ The Navy proposed a blockade of North Vietnam to stop the seaborne supply routes at the source, but "the United States would do it the hard way, by stopping up the broad end of the funnel. No one seemed to realize just how broad that end of the funnel was."¹⁵ Minor riverine operations were conducted in conjunction with Operation Market Time, but met with slight success due to commitment of only a relatively few number of assets which had limited capability and effectiveness.

Embracing the strategic objectives set for the war itself, the broad based mission for both the Army and Naval Forces alike was "to support the extension of South Vietnamese control over the people and territory of the country."¹⁶ However, the specific Naval mission at the beginning of Naval riverine involvement, as stated in the Chief of the Naval advisory Group Vietnam letter dated 25 August 1965 was "to conduct surveillance, gunfire support, visit and search, and other operations as directed along the coast of the Republic of Vietnam in

order to assist the Republic of Vietnam in detection and prevention of Communist infiltration from the sea." A secondary mission was "to improve the Vietnamese Navy's counterinsurgency capabilities and assist Vietnamese and U.S. forces to secure the coastal regions and major rivers in order to defeat the Communist insurgency in Vietnam."¹⁷ The primary mission was effectively fulfilled in Operation Market Time, but the secondary mission was not. After conducting the limited riverine operations in Market Time, it became obvious that a larger dedicated riverine force would be needed to accomplish the secondary mission. This study examines the development of that force and its evolution as it pursued that original broad based mission.

Endnotes

¹R. L. Schreadley, From the Rivers to the Sea (Annapolis, MD; United States Naval Institute, 1992), 76.

²Marolda, Edward J. and Pryce III, Wesley G. A Short History of the United States Navy and the Southeast Asian Conflict 1950-1975. Naval Historical Center, Department of the Navy, Washington, DC, 1984. p. 50.

³William B. Fulton, Vietnam Studies: Riverine Operations 1966-1969 (Washington, DC: Department of the Army, 1973) 19.

⁴Department of the Navy, Riverine Warfare: The U.S. Navy's Operations on Inland Waters Rev. ed. (Washington, DC: Naval Historical Center, 1969), 41-42.

⁵Riverine Warfare, 41-42.

⁶Riverine Warfare, 41-42.

⁷Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analyses, 1976), 3.

⁸Fulton, 17.

⁹From the Rivers to the Sea, 77.

¹⁰From the Rivers to the Sea, 77.

¹¹"Game Warden," 3.

¹²From the Rivers to the Sea, 83-85.

¹³"Game Warden," 3.

¹⁴From the Rivers to the Sea, 58.

¹⁵From the Rivers to the Sea, 85-86.

¹⁶Victory Daniels, and Judith C. Erdheim, Game Warden (Arlington, Virginia: Center for Naval Analyses, Operational Evaluation Group, January 1976), 38.

¹⁷From the Rivers to the Sea, 89.

CHAPTER 2

CREATION OF THE RIVERINE FORCE

Several factors influenced the creation of the riverine force. The strategic concept set the stage, determined the overall mission, and outlined campaign goals. The campaign plan outlined areas of responsibility, assigned missions, and defined command relationships. Operational and tactical concepts then shaped the specific initial makeup of the force. Outlining the initial force and its most notable elements give a starting point for comparison and a basis for analyzing the evolutionary process.

Theater Strategic Picture

The United States became involved in the Indochina conflict to stop the expansion of communism, often referred to as the "Domino Effect." The political picture was complicated both internally and internationally by the area's French colonial past and the Cold War. To provide effective support without inviting direct international involvement by other communist countries, the United States attempted to strengthen the South Vietnamese government by providing foreign aid assistance and military advisors. South Vietnamese governmental control was tenuous at best and rampant corruption limited the effectiveness of United States advisory efforts.

Following the overthrow and assassination of President Ngo Dinh Diem in November 1963 the political and military situation in South Vietnam began to deteriorate more rapidly. Finally in 1965 the United States military intervened directly in South Vietnam to try to stabilize conditions. Thus began the process of attempting to achieve the strategic goals of forming an effective barrier along the Demilitarized Zone (DMZ) to the north, stopping North Vietnamese infiltration, eliminating enemy main force units in combat, and providing security to enable the extension of South Vietnamese government control over its territories.

The IV Corps Tactical Zone containing the Mekong Delta posed special problems for American strategists. The Memorandum for the President from Secretary of Defense McNamara on 16 March 1964 provided this assessment of Viet Cong influence in the region:

About 40% of the territory is under Viet Cong control or predominant influence. In 22 of the 43 provinces, the Viet Cong control 50% or more of the land area, including 80% of Phuoc Tuy; 90% of Binh Duong; 75% of Hau Nghia; 90% of Long An; 90% of Kien Tuong; 90% of Dinh Tuong; 90% of Kien Hoa; and 85% of An Xuyen.

The provinces specifically mentioned above were evenly split between III and IV Corps Tactical Zones, with the last four located in the Mekong Delta. Due to the predominantly waterborne lines of communication and the reluctance of the South Vietnamese government to allow a significant United States military presence in the Mekong Delta, the intent in early 1965 was to set up a seaborne blockade (Market Time) and sharpen SVN efforts in the area with U.S. Naval advisors only. Because of the high population density and the predominantly local guerilla threat in the Delta, the main strategic aim became that of countering Viet Cong (VC)

infiltration and establishing effective pacification in local villages and hamlets. These efforts again proved insufficient to rapidly neutralize the enemy. The Viet Cong retained control of vast areas of the Mekong Delta and "until 1966, the VC openly transited the major rivers of southern South Vietnamese (SVN) and taxed the local population."² Finally, in December 1965 American riverine forces were established in the Delta with the primary mission of providing security to enable expansion of SVN governmental control, and the secondary mission of pacification. Although pacification was often published as the secondary mission, the commander of U.S. military forces in Vietnam (COMUSMACV), General Westmoreland, repeatedly stated that pacification was the primary objective of all Allied forces.

The theater strategic picture was shaped by the South Vietnamese military and political structure, U.S. strategy, Viet Cong (VC) capabilities, and North Vietnamese strategy. South Vietnamese military shortcomings played heavily in the requirement to commit U.S. units to counter the enemy. In fact, the inability of the South Vietnamese Navy to interdict VC waterborne infiltration provided the impetus to launch both Market Time and Game Warden operations. Army of South Vietnam (ARVN) and Vietnamese Marine Corps (VNMCM) problems that plagued military unit effectiveness throughout the war were documented as:

The reluctance of senior commanders to delegate and their willingness to tolerate poor performance, lack of supervision by the chain of command in the execution of orders, grade imbalances and slow promotions, lack of school-trained officers and technicians, desertion, failure to exploit supporting fires, lack of thoroughness in planning and coordination, poor exploitation of tactical intelligence, and insufficient technical skills.³

Multiple factors contributed to these problems, many of which were the result of the corrupt political system.

The South Vietnamese political quagmire was not totally debilitating to the U.S. effort, but had a significant impact on the U.S. strategy and the American ability to conduct large scale operations. The widespread disenchantment of the local Vietnamese populace with the government in Saigon manifested itself in several ways. A very visible and vocal aspect surfaced in the sharp religious divisions in the society and in the anti-government militant groups formed among the South Vietnamese people. These groups wielded significant political power and had ultimately brought about the fall of President Diem.

The factionalism and opportunism that pervaded the highest levels of the Vietnamese military and political structure also showed a lack of commitment to the Saigon government. At one point, coup attempts became so frequent and disruptive that the U.S. Ambassador was driven to complain to military leaders about what was happening:

In one twenty-month period following Diem's death, ten different governments grabbed power in Saigon. Coup followed coup with such disturbing consequences that finally US Ambassador Maxwell Taylor called together some of the leading plotters, such as Generals Ky and Thieu, to scold them in no uncertain terms: "Do you all understand English? . . . I told you clearly . . . we Americans were tired of coups . . . Now you have made a real mess."⁴

This corrupt and factional political structure affected not only South Vietnamese military efforts, they negatively impacted American efforts as well. The tentative and often total refusal of local Province Chiefs to provide ground troop support for U.S. riverine operations is

indicative of the negative impact this corrupt political system had on U.S. efforts throughout the theater.

The strategic importance of pacification in countering enemy insurgency was underscored by the presence of many United States and international agencies in Vietnam such as AID, the Red Cross, USIA, and the CIA, all of which supported some aspect of pacification. The Commander U.S. Military Assistance Command Vietnam (COMUSMACV), General Westmoreland, clearly saw the importance of pacification: "[It] was the ultimate goal of both the Americans and the South Vietnamese government."⁵ But although they agreed on the importance of this concept, U.S. and SVN military leaders still did not agree on what this meant in practice. For the South Vietnamese government and military, "the term 'pacification' was defined to include maintaining territorial security, gathering military intelligence, and conducting operations to eliminate Viet Cong."⁶ The Vietnamese concept emphasized the military aspects of controlling an area, while the American concept focused more on the long term benefit of winning the "hearts and minds" of the local populace in support of the Saigon government.

The U.S. effort in the pacification arena was severely handicapped in several areas. Due to the language and cultural barriers between the American and Vietnamese people, Westmoreland decided that "a cardinal principle in pursuing pacification was that it was primarily a South Vietnamese task."⁷ In doing so, he laid the success or failure of this primary objective of the war on the capabilities of a South Vietnamese political and military structure that was plagued by corruption, incompetence and personal opportunism. The lack of

coordination between the many U.S. agencies involved in the conflict further harmed the pacification effort. Westmoreland described the coordination problems as follows:

As the American military effort expanded, so did programs managed by AID, CIA, and USIA, so that in time all agencies were competing for resources and scarce South Vietnamese manpower. . . . no one agency or person other than an overburdened President was pulling everything together.⁸

Not until 9 May 1967 were all of the U.S. organizations involved in the execution of the pacification process placed under the command of one man, General Westmoreland.

The highest political echelons in Washington DC not only repeatedly stated the U.S. military resolve, but also publicized the pacification objective as well. President Kennedy, in his speech to Congress on May 1961, stated that the Vietnam conflict was "a contest of will and purpose as well as force and violence-a battle for minds and souls as well as lives and territory."⁹ The desperation and political determination present on Capitol Hill was reiterated by Lyndon Johnson in 1965 when he declared, "If we are driven from the field in Vietnam, then no nations can ever again have the same confidence in . . . American protection."¹⁰

After the resignation of Ambassador Lodge in June 1964, there was some high level discussion about centralizing control of all U.S. agencies involved in Vietnam. To facilitate coordination of U.S./Vietnamese military and pacification efforts it was proposed that COMUSMACV would assume the duties of U.S. Ambassador to the Republic of South Vietnam. However, political pressure in America precluded such a move and as stated by Westmoreland, "There was never a question as to my

relationship with Ambassador Taylor. He was the boss; I was, in effect, his deputy for military affairs."¹¹ The U.S. effort not only embraced the two pronged effort of military conquest and pacification, but had to undertake the burden of nation building. The success of each depended on the other, had to be pursued in specific order, and had to be extremely well coordinated to be effective. The Center for Naval Analyses study, published in 1968, clearly outlined their relationships:

Three campaigns are being conducted in Vietnam today: the military offensive to defeat the VC and North Vietnam Army (NVA) and gain initial security; Revolutionary Development [pacification] to continue the restoration of security and to establish governmental control; and nation building to develop a political and economic base. These 3 campaigns are being carried out simultaneously, with Revolutionary Development (RD) serving to bridge the gap between the military offensive and nation building. In theory, the sequence of operations should start with search and destroy missions . . . followed by clear and hold operations . . . to permit the introduction of RD teams.¹²

These three simultaneous campaigns required a delicate balance, and given the corruption in Saigon and the political/military deficiencies cited previously, that balance was difficult to achieve and virtually impossible to maintain.

Although we must keep in mind the constant pressure this often contradictory system brought to bear even at the tactical level, the turbulence above the campaign level was generally stabilized at the level of COMUSMACV and the Ambassador which resulted in more clearly enunciated military and political strategies for operational level leaders. These strategic level filters for DC/Saigon perturbations on occasion yielded to pressure and changed theater policy, but by and large they gave consistent guidance in the conduct of the war. While

generally consistent, this guidance was not necessarily correct.

Westmoreland's three phase strategy was to:

Protect developing logistics bases, gain the initiative and eliminate enemy base camps and sanctuaries, and finally conduct sustained ground combat and mopping up operations or push guerrillas across the frontiers and contain them.¹³

Two additional tasks that were performed throughout the conflict were "pacification and strengthening the ARVN."¹⁴

At the operational level, the difficulties of terrain and population in the Mekong Delta prompted Westmoreland to initially rely on the South Vietnamese military forces to control the Delta, "I was similarly hopeful," he said, "that amid the teeming population of the Mekong Delta the South Vietnamese also could do the job alone."¹⁵ When American military leaders recognized the fact that the Vietnamese Navy (VNN) could not overcome the VC in the IV CTZ and committed U.S. riverine forces, the Field Force headquarters command structure in that area was not in place. As a result, the working relationships required to effectively coordinate U.S./VNN efforts had not been established. Because Westmoreland had not contemplated a major American deployment in the Mekong Delta, there was no Field Force headquarters serving with the Vietnamese IV Corps.¹⁶

The final piece of the U.S. strategic picture that significantly affected riverine force operations throughout the war was the failure of COMUSMACV to effectively interdict the supplies and units transiting along the Ho-Chi-Minh Trail (fig. 4). In his memoirs, Westmoreland lamented the lack of sufficient available forces prior to 1968 to commit to the task. Then he blamed political restrictions for his failure to sever this strategically critical enemy infiltration route:

When at last, in 1968, our strength had increased sufficiently and the enemy had been depleted enough to make the move possible [blocking of the Ho-Chi-Minh trail by a corps], President Johnson was so beset by war critics that he would take no step that might possibly be interpreted as broadening the war.¹⁷

Despite the dubious rationale cited for not interdicting the Ho Chi Minh Trail and simply relying on the South Vietnamese for the bulk of the pacification effort, failings at the strategic level to properly conduct pacification efforts and counter overland infiltration had a far reaching negative impact on operations in the Mekong Delta.

Viet Cong forces, from a strategic perspective, were quite capable and very effective at guerilla warfare. The VC had a well established infrastructure and were made up of battle hardened veterans who were well trained and supplied due to the protracted conflict fought against the French. American involvement in the South had begun almost immediately after the departure of the French in the mid-1950s in the form of a relatively small number of advisors. By 1960 they had grown in number to almost 1,000, and then in 1961, President Kennedy announced an expansion of the advisor program. By the beginning of 1963 their number had ballooned to eleven thousand. However, despite the best efforts of Vietnamese military forces augmented with American advisors, the VC maintained effective control in many areas:

Through the tested stratagems of coercion, harassment, shelling, kidnapping, murder, and other terrorism-sometimes burning entire hamlets-and through ambushes and attacks that inflicted painful losses on the ARVN, they kept an image of power before the people.¹⁸

The advantages of waging warfare in an underdeveloped country with inhospitable terrain clearly fell to the Viet Cong using guerilla tactics. Not surprisingly, it became apparent prior to 1964 that the

South Vietnamese simply lacked the numbers to cover all the areas to which the VC had access. The Viet Cong, as Westmoreland noted, had "evolved into three parts: guerilla, local, and main forces."¹⁹ The Viet Cong effort on a strategic level can be categorized as insurgency warfare. However, North Vietnamese leaders viewed the conflict from a different perspective.

The North Vietnamese leadership, Ho Chi Minh and General Vo Nguyen Giap, viewed the conflict with America as a protracted effort to push out a foreign power and reunite the North and South under North Vietnamese control. The American view that the North Vietnamese were purely supporting insurgency efforts in the South was in grave error and in fact the North Vietnamese were initiating military intervention for a protracted war. In the words of General Dave Palmer:

Insurgency warfare is a method used by internal revolutionaries to oust their own government; protracted warfare, on the other hand, is employed by a weak nation to repel a powerful foreign invader. The answer lies in Ho Chi Minh's view of all Vietnam as an entity which should rightfully be his. Theorist Truong Chinh, enunciating a politburo policy in December 1963 . . . had said "The war waged by the people in South Vietnam is a protracted one because we are a small people having to fight an imperialist ringleader which is the U.S.A." Ho Chi Minh changed forms of war from moral and logistical support of the Viet Cong, to military intervention.²⁰

In 1969, Ho Chi Minh publicly stated this strategic viewpoint that fundamentally influenced their conduct of the war from the beginning. He also addressed the North Vietnamese role in the international communist movement:

No matter what difficulties and hardships lie ahead, our people are sure of total victory. The U.S. imperialists will certainly have to quit. Our Fatherland will certainly be reunified. Our fellow-countrymen in the South and in the North will certainly be re-united under the same roof. We, a small nation, will have earned the signal [sic] honor of defeating, through heroic struggle, two big

imperialisms -- the French and the American--and of making a worthy contribution to the world national liberation movement.²¹

General Giap's writings also reflect the communist perspective of the war. He felt that the U.S. military strategy was incorrect from the start, lacked flexibility, and failed to identify key indicators on the battlefield. His assertion was that:

A right strategic decision is the prime condition for winning victory. . . . Revolutionary practice is multiform and changes from one moment to another . . . it was necessary . . . for us to remain very alert and detect in time the new elements and factors on the battlefield. At the same time we had to be able to make decisions and adopt policies consistent with the rapid development of the situation.²²

U.S. leaders, despite the experience of the French and their own years of frustration, did not seem to comprehend the situation. Some of this was due to Communist deception. The North Vietnamese and Viet Cong spent as much effort on deception as in conducting combat operations. Giap clearly stated the criticality of deception when he wrote, "We must use skillful stratagems to deceive the enemy and cause them to make wrong assessment of our intentions."²³ Westmoreland's early declarations of victory, prior to the TET Offensive, clearly indicates the American misinterpretation of the enemy reluctance to engage in large scale open combat. The North Vietnamese had, in fact, committed themselves to a long term war. As Giap asserted in 1962:

Only a long-term war could enable us to utilise to the maximum our political trump cards, to overcome our material handicap and to transform our weakness into strength. . . . contenting ourselves with attacking when success was certain, refusing to give battle likely to incur losses to us or to engage in hazardous actions."²⁴

Westmoreland's assessment of the TET Offensive when it happened was that it was a last desperate surge by a defeated foe. However, as others have noted, "the appearance of large well-equipped units engaged

in conventional offenses does not indicate that guerilla war has failed, but just the opposite: It has succeeded enough to launch the next stage."²⁵ Years later, contradicting his declarations of American success at that time in the conflict, Westmoreland stated that he had correctly interpreted this event:

The enemy clearly was moving into the third phase of revolutionary warfare, committing regiments and subsequently divisions to seize and retain territory and to destroy the government's troops and eliminate all vestiges of government control.²⁶

Viewing each combatant's strategy inherently exposes this study to some degree of rhetoric, but sifting through the claims and counter-claims leads to the conclusion that the results achieved by each side ultimately determine where facts are separated from fiction. In painting the strategic picture, whether or not General Westmoreland's strategy and perceptions were flawed is open to argument, but the kernel of important truth was that his conduct of the war consistently ran counter to the primary objective of pacification. Marvin Gettleman's analysis of the strategic scene very nicely ties together the who, what, why and results:

Why did the US military leaders make precisely the same errors as their French predecessors? After all, General Westmoreland asserts that he studied both the French defeat and the writings of General Giap. . . . it is no surprise that they dismissed the theory's essential content as mere communist propaganda, while focusing exclusively on the military forms of the struggle. In doing so, they fulfilled their own role in the theory, defending the property rights of landlords and capitalists, foreign economic interests, and hated puppet rulers, all with the most devastating weapons they could use. As a result they drove more and more of the peasants and workers into supporting the people's war.²⁷

The Need For a Riverine Force

Due to the riverine environment of the Mekong Delta and the reluctance of the South Vietnamese government to allow introduction of U.S. forces into the Delta region, American high level planners had a uniquely difficult problem of countering enemy activity there. From a historical perspective, the French proved that the environment of the Mekong Delta and its plethora of waterborne lines of communication (LOCs) required the use of waterborne assets in at least a supporting role for ground maneuver units. The recent Vietnamese riverine warfare experience, the lack of recent American experience in that type of warfare, and host nation reluctance to introduce significant American military forces caused COMUSMACV to initially rely on Vietnamese Navy (VNN) capabilities to counter the VC threat in IV CTZ. Market Time was established in March 1965 and "by mid-1966, MACV discounted seaborne infiltration as a major, workable resupply method for the VC."²⁸

Market Time operations "cut down to a trickle the flow of supplies by sea to the delta, where the Viet Cong were furthest away from the stockpiles in the north,"²⁹ but as the Bucklew report stated in January 1964, infiltration routes down the Ho-Chi-Minh Trail and from Cambodia allowed a large flow of supplies to continue into the Delta. Without effectively interdicting these other infiltration routes (fig. 5) the VC had to be engaged virtually at every bend in the river. As stated in a U.S. Navy analytical study, the "SVN military and civilian control of land, sea and inland waterway routes was inadequate; the VNN River Force was particularly ineffective."³⁰

Since VNN riverine units had neither sufficient logistics nor combat capability to effectively counter the VC threat in the Delta, U.S. Navy assets from operation Market Time were committed to assist in that effort. Market Time river patrols began in September of 1965 with two craft and quickly grew to 54 Swift boats dedicated to inshore patrolling. Continued incidents of Viet Cong mining and attack brought to light the inability of the combined VNN and Market Time riverine efforts to reduce VC control of the major rivers and to secure the sea lanes leading to Saigon for commerce. As a result, representatives of CNO, CINCPAC, CINCPACFLT, COMUSMACV, and CHNAVADVGRP met in Saigon to review the progress of Market Time operations to that time. The blockade operations were viewed as successful, but "it was recommended that an extensive river patrol be established with 120 river patrol craft operating from LSTs anchored offshore. . . . [they would] not be part of Market Time, but would be directed by the chief, Naval Advisory Group."³¹ This gave birth to the River Patrol Force (TF-116) which would conduct Operation Game Warden.

Time Line of Major Operations

There were four major waterborne operations that directly involved the IV Corps Tactical Zone. The first major operation was Market Time (TF-115), which was the U.S. Navy coastal blockade that began on March 1965 and continued throughout the war. The second undertaking was Operation Game Warden (TF-116) which was designed to deny enemy use of the major rivers of the Delta and to secure the sea/river lines of communication into Saigon. Operation Game Warden began on December 1965 and also continued throughout the war. The third

major operation was the Mobile Riverine Force (TF-117) which was created to conduct offensive "search and destroy" operations to eliminate Viet Cong (VC) units in the Delta. The Mobile Riverine Force began operations in February 1967 and was disbanded in August 1969. The final major United States undertaking in the Mekong Delta began on November 1968 was operation SEALORDS which combined much of the assets of Task Force 115, Task Force 116, and Task Force 117 into the new Task Force 114. However at the same time, "Market Time, Game Warden, and Mobile Riverine Force operations unrelated to operation SEALORDS would continue with as little disruption as possible."³² The initial SEALORDS proposal was to transform three largely independent task forces into a "Brown Water task fleet,"³³ to provide for the cooperation and mutual support of sea/air/ground forces, and provide aggressively patrolled northern interdiction barriers which would finally reduce communist logistic support of the entire lower Delta. "Sea Lords offered the last, best hope for establishing firm governmental control there."³⁴ Once approved, SEALORDS began a series of campaigns "oriented toward the broad objectives of interdicting infiltration routes from Cambodian territory into the Mekong Delta regions, pacifying vital trans-delta inland waterways, and harassing the enemy in his base areas."³⁵

Initial Enemy and Allied Force Arrayal

Although the initial numerical advantage that the VC enjoyed in 1965 was overcome by the allies the next year, the advantages in training, terrain and the ability of guerilla forces to swarm, scatter and choose vulnerable targets must be considered. In 1965, the VC had 70,000 well-trained and supplied troops in the Delta. This gave them a

force structure of one guerilla squad per hamlet, a platoon per village, a company per district, a battalion per province, and reserves at the regional level. In contrast, the U.S./South Vietnamese (SVN) alliance fielded the 7th, 9th, and 21st Vietnamese Army Divisions reinforced with five Ranger Battalions and three Armored Cavalry Regiments totalling approximately 40,000 men. The allies also had six SVN Riverine Assault Groups (RAGs), and eleven SVN Coastal Force Junk Groups, but their capabilities were assessed as poor. The United States deployed the 13th Combat Aviation Battalion consisting of four assault helicopter companies and one reconnaissance company, all in support of SVN army operations. Initially, the United States attempted to bolster SVN units with 3,000 American advisors, but the need for direct U.S. involvement in the Mekong Delta became readily apparent. In the beginning of 1966, total Allied strength reached 150,000 in the Delta, but Allied units ranged from battle-tested regulars to unreliable village militia.³⁶

The initial riverine force was virtually built from scratch since the Navy was not prepared to conduct or resource riverine operations. "MacLeod's Navy," reminiscent of the TV series "McHale's Navy," was the nickname given to the riverine patrol force in its infancy during Market Time operations, in part due to its small size and lack of riverine experience. It had to draw on recent SVN experience with the French and past historical lessons learned. The Navy soon found a small source of riverine experience among its ranks "as a result of the U.S. Navy's advisory effort . . . [and the] small but gradually increasing group of officers and men in the Navy [who were] exposed to inshore operations in an insurgency environment."³⁷ It also moved

quickly to obtain craft suitable to the task of riverine and inshore minesweeping operations. Navy procurement planners and engineers hurriedly ran tests on existing commercial craft and adapted those "off-the-shelf" designs to fulfill the rapid acquisition requirement.

Since the early Market Time river patrol force was small and was not a dedicated effort, the initial assignment of assets for Task Force 116 (TF-116) will be used as a baseline to begin comparison and analysis. The original unit assignments included one hundred PBRs, eight UH-1B helicopters flown by Army pilots until Navy pilots were trained, twenty LCPLs, an LSD, and an LST. Vietnamese Maritime Police were assigned as interpreters for watercraft search operations.

Notable Elements

The initial makeup of the force was fairly unremarkable, since it was put together quickly. But three elements that were critical to its early success bear mentioning. The Mark I Patrol Boat, River (PBR) was the backbone of the riverine force bringing exceptional speed and maneuverability, surface search radar, two radios, a twin-mount 50-caliber machine gun forward, a rapid-fire 40-millimeter grenade launcher, and a 30-caliber machine gun aft. Its fiberglass hull, 220-horsepower diesel driven Jacuzzi jet pumps, and ability to steer by movement of the jet nozzles provided great advantages in shallow water operations including a draft of only 9-18 inches, extreme responsiveness and maneuverability, and a capability of 25 knots. Dedicated close air support was crucial to operations in an environment that clearly favored guerilla warfare. Helicopter support brought dramatic improvements in firepower, ambush resistance, airborne observation and early warning,

and quick response to enemy evasion or movement. Due to a lack of available or unpopulated land for placement of a base for riverine operations, an LSD, LST and barge basing arrangement provided great advantages in mobility and surprise. When the later phases of riverine warfare are analyzed, the evolutionary process will become apparent as these critical elements of the early riverine force are improved and other significant assets are added to bring more firepower and flexibility to the fight.

Endnotes

¹Gareth Porter, ed., Vietnam: A History in Documents (New York: New American Library, 1979), 267.

²Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analyses, 1976), 3.

³Department of the Army, Commander U.S. Military Assistance Command, Vietnam, U.S. MACV ARVN/Marine and Naval Forces Advisory Report, 1st Qtr, CY69 (APO San Francisco, CA: June 1969), 1-2.

⁴Marvin E. Gettleman, Jane Franklin, Marilyn Young, and H. Bruce Franklin, Vietnam and America: A Documented History (New York: Grove Press, Inc., 1985), 237.

⁵William C. Westmoreland, A Soldier Reports (Garden City, NY: Doubleday & Company, Inc., 1976), 68.

⁶R. L. Schreadley, From the Rivers to the Sea (Annapolis, MD: US Naval Institute, 1992), 78.

⁷Westmoreland, 216.

⁸Westmoreland, 210.

⁹Vo Nguyen Giap, People's War, People's Army (New York: Fredrick A. Praeger, 1962), xvii.

¹⁰Terry L. Deibel and John Lewis Gaddis, eds., Containment, Concept and Policy (Washington, DC: National Defense University Press, 1986), 6.

¹¹Westmoreland, 68.

¹²J. Mintz, "Game Warden, Mobile Riverine Force and Revolutionary Development Operations in the Delta," INS Research Contribution No. 26 (AD 500 967) (Washington, DC: Institute of Naval Studies, Center for Naval Analyses, June 1968), 5-6.

¹³Westmoreland, 145.

¹⁴Westmoreland, 145.

¹⁵Westmoreland, 146.

¹⁶Westmoreland, 155.

¹⁷Westmoreland, 148.

¹⁸Westmoreland, 100.

- ¹⁹Westmoreland, 55.
- ²⁰Dave Richard Palmer, Summons of the Trumpet (San Rafael: Presidio Press, 1978), 62-63.
- ²¹Vo Nguyen Giap, How We Won the War (Philadelphia, PA: RECON Publications, 1976), 54.
- ²²How We Won the War, 29.
- ²³How We Won the War, 53-54.
- ²⁴People's War, People's Army, 29.
- ²⁵Vietnam and America: A Documented History, 193.
- ²⁶Westmoreland, 145.
- ²⁷Editorial comments on General Vo Nguyen Giap's "The political and Military Line of Our Party" article published from "Vietnam Studies, Number 7". Marvin E. Gettleman, Jane Franklin, Marilyn Young, H. Bruce Franklin, Vietnam and America: A Documented History (New York: Grove Press, Inc., 1985),
- ²⁸"Game Warden," 4.
- ²⁹Elmo R. Zumwalt, Jr., On Watch (New York: Quadrangle/The New York Times Book Co., Inc., 1976), 37.
- ³⁰"Game Warden," 3.
- ³¹From the Rivers to the Sea, 89-90.
- ³²From the Rivers to the Sea, 150.
- ³³From the Rivers to the Sea, 153.
- ³⁴From the Rivers to the Sea, 153.
- ³⁵Department of the Navy, Commander U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, July 1969), page 1 of Enclosure (1).
- ³⁶Victor Croizat, The Brown Water Navy; The River and Coastal War in Indo-China and Vietnam, 1948-1972 (Dorset, England: Blanford Press, 1984), 122-123.
- ³⁷William H. Cracknell, Jr., "The Role of the U.S. Navy in Inshore Waters" (Thesis, Naval War College, 1968) Naval War College Review 21 (November 1968: 65-91), 77.

CHAPTER 3

RIVERINE FORCE EVOLUTION

The U.S. Navy did conduct limited riverine patrols as part of the coastal blockade in Operation Market Time. However, due to dissatisfaction with the meager impact of those patrols, the first independent River Patrol Force was created as Task Force 116 (TF-116) to conduct Operation Game Warden in December 1965. This young force evolved in many areas, including tactics, techniques, force integration, and equipment improvement. Once Operation Game Warden was well established, U.S. riverine warfare evolved to include assault type operations of the Mobile Riverine Force (MRF). MRF operational planners incorporated many of the lessons learned from Game Warden and previous South Vietnamese (SVN)/French Assault Force experience. The riverine force evolved during MRF operations in the areas of coordination, force integration, innovation, equipment adaptation, sea basing, tactics, techniques, and technology. To examine this evolutionary process from immaturity in Operation Game Warden through adolescence in Mobile Riverine Force operations, the following areas will be addressed: significant aspects of Operation Game Warden (TF-116) and the results achieved, and the notable facets and results of the Mobile Riverine Force (TF-117). There will also be an analysis of both forces to show the elements of change and continuity between them.

Task Force 116 - Game Warden

As stated in the TF-116 Operations Order (OPORD), the Game Warden mission was to "conduct river patrols and inshore surveillance, enforce curfews, carry out mine countermeasures, and prevent VC [Viet Cong] infiltration, movement, and resupply along the Delta estuary coast and across the major rivers of the Delta and the Rung Sat Special Zone (RSSZ)."¹ Put in layman's terms, the mission was to prevent VC taxation of river commerce, enforce curfews, keep the main shipping channel to Saigon open, interdict VC infiltration, and counter VC movement and resupply efforts in the Delta. The secondary mission was to participate "in psychological operations to involve the people of the Delta in their own protection and to encourage potential sources of intelligence for Game Warden."² Again put in layman's terms, the secondary mission was pacification. This was the mission order priority enunciated at the operational level, but the ultimate strategic objective of the war, as defined by the Commander of U.S. Military Assistance Command Vietnam (COMUSMACV), was to win the "hearts and minds" of the South Vietnamese people--pacification.

In shouldering the task of meeting mission requirements, Game Warden units labored most strenuously under the burden of basing shortfalls and very restrictive Rules of Engagement (ROE). Over time there was some relief through utilization of specialized units, more effective tactics, and improved equipment. Upon inception in September 1965, the U.S. Navy had no specific doctrine, few assets, no focused training program, and virtually no riverine experience, so Game Warden planners had to start from scratch. Following a review of historical

lessons learned, integration of past and current French/SVN experience, and timely creation of a riverine training syllabus, operations began officially in December 1965. The fact that U.S. riverine forces were entering an established conflict between SVN and VC forces cannot be ignored. The VC's experience and organization were exceptional. For example, the October 1966 monthly historical summary cites COMUSMACV message 160930Z November 1966 compiled from data taken from fifty Viet Cong documents captured by elements of 3rd Brigade, 4th Infantry on 15 November 1966:

Evidence of even more intensive enemy activities in the months to come is shown by discovery of Viet Cong documents indicating a reorganization of its forces in the RSSZ on 20 October, with emphasis on river mining and ambush.

Three Viet Cong platoons, which had operated separately in the Rung Sat, plus a recoilless rifle element were reformed as a company size element to be known as "Unit Three", consisting of a Command Committee, Administrative Staff, a reconnaissance platoon, 75mm recoilless rifle and 81mm mortar platoons and a River Mining Squad.

The mission of Unit Three, established by a conference held after the mining of a U.S. LCM-3 on 7 October, is to conduct "Quick and Clean" offensive operations against shipping along the Long Tau, Nha Be and Song Dua Rivers.³

One important area where shortcomings at the strategic level directly and dramatically impacted unit effectiveness was in rules of engagement. The three greatest ROE problems were that Game Warden units were prohibited from firing on fleeing craft, inspecting steel-hull merchant ships for contraband, or firing on ground forces without first undertaking the cumbersome task of obtaining higher clearance. This last point was clearly enunciated in the TF-116 OPORD, "River Patrol Force units will not initiate any attack on ground forces without the specific authority of CTG116.1 or CTG 116.2 as appropriate, and the cognizant TOC."⁴ Such cases of very restrictive ROEs virtually tied

the hands of tactical units, making them totally ineffective in many scenarios, and invited exploitation by the enemy. For instance, early ROEs only permitted Patrol Boats, River (PBRs) to fire when they were fired upon, rendering the search effort for contraband against a determined smuggler virtually ineffective. As long as they didn't fire on the PBRs, "suspicious junks and sampans could ignore an order to stop for search and escape. The only actions sanctioned by the Operations Order in this case were for the PBRs to give chase and to fire warning shots."⁵ A flash of sanity came in October 1966, when the ROEs were revised to allow patrol craft commanders to direct fire against an evading watercraft, but the other restrictions continued to hamper unit effectiveness throughout the campaign. Due to political considerations and international law, the Game Warden OPORD also prohibited any action to demand identification from, or stop, visit, and search foreign flag steel-hull merchant ships. As a result, "Merchant vessels of various flags sometimes exploited this immunity by unloading cargo onto small craft in the river or dropping items overboard as they moved up the channel."⁶ If ships were caught in the act of transferring war materials to smaller craft, Allied units could respond by apprehension of the small craft, but "only after it was no longer alongside the merchant."⁷ As a result, infiltration via these commercial craft was never significantly abated. Very restrictive and complicated ROEs were illustrative of the problems of operating in this theater of operations. Allied efforts across the board were unduly hampered by what can possibly be called an example of poor theater level leadership.

The biggest Game Warden problem was one of how to base boats. Initially, four PBR divisions of thirty boats each were planned, which required three offshore and eight permanent inland bases. As described in the Department of the Navy Monthly Historical Summary for January 1966, sites for permanent base facilities were very difficult to obtain and required significant construction efforts:

Six of the eight sites required dredging, filling, and settling, prior to the commencement of construction. Expediency and the requirements of the mission dictated that we choose land that under normal conditions might be described as "not the most desirable." This is because we tried, where possible, to obtain property that was already under government control, thereby circumventing the time consuming project of title search. Also, much of the choicest riverfront property is privately owned, and quite simply, wasn't for sale. To acquire it would require a process akin to condemnation. This would be extremely time consuming and probably result in ill will in the community.

As a result of this time consuming acquisition and construction process, the utilization of seven temporary bases was planned:

As it is desired to employ the PBRs as soon as possible after they arrive in country, austere temporary facilities are planned for Cat Lo, Nha Be, Can Tho, Vinh Long, Long Xuyen, Sadec, and My Tho. These temporary bases will be collocated with existing Vietnamese RAG bases.

The number of offshore bases was driven by the fact that patrol operations were to be conducted on three major rivers of the Delta and one afloat base could be placed at the mouth of each of these rivers to augment limited basing facilities ashore. As operational requirements dictated, afloat bases could be moved and temporary shore bases utilized (fig. 6). Each division was further broken down into three 10 boat sections. Later, when eighty PBR Mark IIs arrived, six new sections were added to existing divisions. Also, a fifth division was created consisting of two sections to keep all divisions within a reasonable

distance of thirty-five nautical miles from their respective patrol areas (fig. 7). Offshore basing met with frequent periods of unfavorable seas for launching and recovering of PBRs, and "on 15 July [1966] it was reported that weather was restricting PBR operations almost 50 percent of the time."¹⁰ Facilities were never more than marginal even when shore basing increased in Operation SEALORDS. To further exacerbate the problem, base defensive requirements significantly siphoned off operational assets including watercraft, troops, weapons and material. Some accounts indicate that more action was seen in shore base defensive duty than in river patrol operations.

Another problem that had the potential for disaster was in the lack of an adequate supply of spare parts and maintenance support for the PBR. In the rush to acquire adequate numbers of riverine craft, purchasing agents for the government sought to hold down program costs by buying spare parts in quantities to meet only minimum anticipated consumption rates, as projected by the manufacturer, and failed to incorporate an adequate fiberglass repair training syllabus for unit level maintenance personnel. Not surprisingly, the harsh environment quickly outstripped parts supplies and maintenance repair facility capabilities. Higher level supply managers at the time stated that "extraordinary difficulties were encountered in the supply of repair parts for PBRs. . . . [until] October 1967."¹¹ Since many of the unit repair personnel were also part of the boat crew, their close relationships and ever present motivation for survival in combat drove them to find a means to provide the needed repairs quickly. Operational level units adapted to the situation by improvisation in machinery

repair techniques, training on the job, and conducting more extensive fiberglass hull repairs locally. Many other unanticipated difficulties of operating this craft in heavily silted and infested waters had negative affects on the capabilities of the PBR. Speed was the PBR's best defense against the enemy, but this was severely hampered by the accelerated deterioration of the Jacuzzi pump, excessive weight, fouling of the bottom, hull cracks and fouling of pump intakes. Use of swimmers to clean the PBR bottom and pump intakes helped, as did Mk II installation of aluminum gunwales and improved pumps. Another factor was that "by mid-1968, spare parts had caught up with the demand and maintenance crews had become skilled in working with glass fiber."¹² In light of these barriers to efficiency and availability, maintenance and supply managers in Saigon were amazed that PBR mission capability rates were consistently as high as they were and stated that "the fact that an extraordinarily high percentage of the PBRs was kept operating was a tribute to the combined ingenuity and hard work of the maintenance personnel in the boats and at the bases."¹³

Initial Game Warden success was enhanced by the addition of SEAL and minesweeping units. Integration of SEAL operations, beginning in February 1966, gave the Task Force Commander rapid response organic intelligence and counterinsurgency warfare assets. These special forces units enabled offensive operations to be conducted against VC held inland targets, many of which were high payoff, but limitations in element size and firepower precluded direct confrontation with large VC unit concentrations. Mines were a constant threat, with a majority of them initially being free-floating. Early riverine force units had

virtually no capability to counter the threat and often resorted to shooting any floating mass of vegetation as a suspected camouflaged explosive device. The arrival of four minesweeper boats in March 1966 from MSB Detachment Alfa at Da Nang, "marked the entry of United States units into river minesweeping operations."¹⁴ Although minesweeping operations met with heavy VC resistance from the start, the addition of assets to establish Mine Squadron 11 in June provided viable counter-mine capability and virtually neutralized the mining threat on major waterways. "With the MSB units sweeping their moored gear, and the Vietnamese Navy MIMS units streaming bottom drags, a more complete coverage of the ship channel [was] possible."¹⁵ Of particular note is that a major VC objective was to close the sea lanes to Saigon, but this was effectively denied by USN/VNN minesweeper forces.

The enemy response to early Game Warden engagements, where U.S. forces generally overwhelmed the enemy through sheer firepower superiority, was that VC tactics shifted from utilization of the major rivers for taxation of water commerce, infiltration and resupply routes to the use of smaller rivers or simply waiting until the patrol had passed to begin river crossing activities. The noisy diesel engines of virtually all powered river craft of this time gave ample warning that Allied patrol craft were approaching and facilitated these new VC evasive tactics. An attempt to neutralize this disadvantage drove the first significant U.S. evolution in established river patrol tactics. In July 1966, the first successful use of night ambush tactics was recorded and the "drifting patrol" was implemented to provide a moving silent patrol. Small quiet outboard electric trawling motors were also

utilized on a much smaller scale to provide more positive navigation capabilities.

Two other changes in Allied tactics involved the protection of commercial shipping anchorages and the intelligence collection focus. Commercial shipping at anchorage provided the VC very lucrative stationary targets and ships were routinely attacked by the use of swimmers, mines or direct weapons fire from sampans or river banks. Although not the creation of a new tactic, the U.S. counter to VC attacks at anchorage resulted in three tactical modifications. On 26 May 1966, CTF-116 "assigned eight PBRs to anti-swimmer patrols at the [Nha Be] anchorage, minesweeping boats (MSBs) were directed to make daily sweeps, and arriving ships were boarded and instructed in basic security procedures."¹⁶ These tactical changes virtually neutralized enemy attacks at the Nha Be anchorage. Another evolutionary process was seen in the gathering of intelligence in an attempt to pinpoint specific VC river crossing sites. This enabled "a planned ambush to intercept a possible Viet Cong river crossing, [which] was employed for the first time during July [1966] and resulted in the most significant GAME WARDEN success to date."¹⁷

Another area of evolution that TF-116 commanders sought was in the field of technology. In November 1966, the Patrol Air Cushion Vehicle (PACV) was tested in the Plain of Reeds (fig. 3), located between the "parrots beak" of the Cambodian border and the Mekong River west of Saigon. This vehicle provided a means of pursuing the enemy across land, marsh and water while maintaining speeds up to 70 knots. It met with limited success and was deemed to have no "significant

advantages over the already available helicopters."¹⁸ The problem was that it was extremely noisy, could not climb steep river banks, or penetrate a tree line and VC evasion techniques quickly incorporated those shortcomings. The initial shock value and surprise gained by U.S. forces did net significant returns, but the limited long term advantage did not justify the extremely high cost per PACV craft.

In the counter-mining arena, however, significant advances were achieved. Due to the low cost and ease of production, the VC became very effective at using crudely made command detonated mines. To counter this ever-present threat, virtually every riverine craft was evaluated for anti-mining capability. In fact, most of the physical evolution of riverine craft in Operation Game Warden dealt with minesweeping and mine-resistance. Some examples were the "LCMM, landing craft converted for chain-drag minesweeping; MSR, patrol minesweepers (converted ASPB); [and the] MSD, minesweeper drones, a new remote controlled high speed craft."¹⁹ In a riverine environment, since speed was the greatest defensive tool and human casualties were the greatest deterrent to enemy attacks, it is not surprising to learn that high speed drones were tested. Although minesweeping drones were used, high speed drones could not overcome the cost versus benefit test which prevented many technological possibilities from being fielded, especially given the limited commitment mind-set of high level U.S. leaders concerning the Vietnam War as a whole. The Mark II PBR was introduced in March 1967 and gave boat crews more speed, better reliability, lower profile, quieter engines, improved armament reconfiguration capability, and additional floatation material.²⁰

Results

In analyzing Game Warden operations, many positive and negative aspects come to the forefront. The most prominent of those on the negative side was the lack of coordination and operational level strategy, while counter-mining was salient on the positive side. The ultimate test of success, however, proved to be operational level mission accomplishment, while contributing to strategic level mission success. All analytical works encountered, and secondary sources that addressed the subject, agree that Operation Game Warden essentially denied the VC use of the major rivers. However, there were still many small waterways that the enemy used and significant areas still remained under VC control. Since only 140 PBRs were allocated, only the major waterways could be effectively controlled.

Coordination with ground force operations was poor and the VC were able to adapt by constantly finding new routes for infiltrating supplies while avoiding PBR patrols. Poor operational level decisions were made without considering the geographical environment and possible avenues available to the VC, especially in the northern Delta (fig. 8). In July 1967, units in the upper Delta reported only light contact with the enemy while units in the lower Delta experienced a much higher VC resistance, so U.S. units were shifted south to meet the perceived imbalance (fig. 9). It was determined through intelligence that "by spring 1968, the enemy was infiltrating supplies over the Cambodian border with impunity."²¹ To counteract the problem, PBRs were shifted back north, but by July they were once again only receiving light contact. To conclude that enemy concentrations were a function of the

frequency of enemy contact was highly suspect, since "the more intensive PBR coverage in the lower Delta and comparable enemy concentrations in both areas could have resulted in the greater number of incidents in the lower Delta."²² Further, the geography of the Bassac and Mekong rivers allowed resupply in the upper region without crossing the rivers; and for an enemy that wished not to engage, there were fewer PBRs to avoid. Even though VC transit along the major rivers as far north as the Cambodian border was effectively neutralized, intelligence used in the planning of Operation SEALORDS later in 1968 showed that:

The enemy generally crossed the border by canals or overland routes between the Bassac River and the Gulf of Thailand, or to the north of the Mekong River In the lower Delta, however, the VC were forced to cross major rivers to supply their base areas in the provinces between the rivers.²³

Though unable to effectively utilize the major rivers themselves, the VC were able to continue their infiltration and supply efforts from Cambodia by adaptation to smaller, less efficient, routes and river crossings utilizing patrol avoidance tactics.

Intelligence sources, assessment from Allied participants and analysis of the evolution of enemy operations provide the following conclusions:

- Game Warden interrupted enemy movement on traditional routes across the major Delta rivers.
- Enemy efforts to close the sea lanes to Saigon--a major VC objective--were denied by U.S. Navy/VNN forces.
- Game Warden secured many sections of the major Delta and RSSZ rivers for commercial use.
- Coordination between Game Warden and ground force operations was inadequate.
- The mobile afloat base concept provided flexibility to river boat operations, enabling river forces to respond to a continually changing threat.
- Curfews proved to be absolutely crucial to fulfilling Game Warden's mission.

- Helicopters were essential to riverine operations in fire support, observation, and medical evacuation.
- PBRs were adequate for patrols on large major rivers, but smaller waterways required more armor and armament.
- The young U.S. Navy officers and enlisted men assigned to river patrols performed aggressively and responsibly on their own initiative.
- The enemy proved to be flexible in adapting to Game Warden in the Delta by continually finding new routes for his supply lines.²⁴

Though lacking in ground force coordination and unable to stop the infiltration effort, Game Warden did accomplish its stated mission of major river transit denial to the VC.

Close air support and minesweeping efforts were critical to Game Warden success. Since no hard evidence exists to determine the real impact of minesweeping operations, inferential evidence must be considered. Two of these pieces of evidence involve the magnitude of the enemy response and their level of effort expended in attempting to continue the affected activity. As noted during minesweeping operations in 1967 which kept the river from Saigon to the sea open for waterborne commerce, "floating mines and severed control wires have been found. Furthermore, the increased tempo of Viet Cong activity against the minesweepers [were] indications that the boats [were] effective."²⁵ Dedicated close air support was undeniably also crucial to successful operations. To provide some quantitative analysis of their impact, the results from a study conducted by the Naval Air Development Center, at the request of the Progress Appraisal Division of COMNAVFORV, are very useful. This study analyzed the effects of terminating dedicated USN air support on VNN Game Warden Operations and concluded that termination of such support would cause a 125 percent increase in boats destroyed or

damaged, 72 percent increase in personnel casualty rate, and firefights would occur 4 times as often.²⁶

Despite the frustrations brought about by continued VC operations in the Delta, Game Warden successfully completed its primary mission and recognized the importance of pacification in the strategic process. Game Warden units regularly participated in humanitarian activities in support of the local population, both officially and unofficially. As stated in many accounts by Game Warden participants, "civic action and good will were as important as military security contributions."²⁷

Task Force 117 - Mobile Riverine Force

It has often been said that the amount of effort spent in planning for a mission pays large dividends once you stand in harm's way, and Mobile Riverine Force (MRF) operations clearly supported this theory. From an analysis of MRF operations and accounts from those that viewed the planning process, it became apparent that the Mobile Riverine Force planners were determined to give the operation every advantage possible by very adeptly analyzing previous lessons learned, making every reasonable effort to integrate available assets, carefully coordinating each operation and quickly adapting to battlefield changes. Just as in Game Warden, these forces also benefitted from evolution in the areas of tactics, techniques and technology. As stated in the TF-117 OPORD, the Mobile Riverine Force mission was to "conduct riverine operations in the Mekong Delta to destroy Viet Cong main and local force units and their resources in order to assist the Government of the Republic of Vietnam in extending control of waterway systems and

contiguous land areas."²⁸ In layman's terms it was a "search and destroy" mission, much different from that of Operation Game Warden, and planners never addressed issues of pacification. It can be argued that "search and destroy" and pacification missions were not compatible, therefore they could not credibly be addressed together. However, since pacification was the primary strategic objective in the populous Delta, the negative effect of this type of mission on pacification should have been closely analyzed and operations conducted to minimize that impact.

Just as with Game Warden, at inception the MRF had no specific doctrine, no assets designed for this environment, no training program, no recent amphibious experience and no Army riverine experience. However, timely analysis of riverine lessons learned from Game Warden/French/SVN experience, adaptation of current doctrine, excellent coordination and expeditious establishment of focused training programs got the force started quickly. With aggressive leadership and the loan of nine SVN river craft, training began in January and operations began promptly in February 1967. The MRF was established to provide a combined Navy/Army force that could confront the enemy in his strongholds, cut off all land and water escape routes, and eliminate significant VC force concentrations in battle. The initial concept had considered the use of U.S. Marine Forces as the land warfare component, but commitments in I CTZ precluded their utilization. "As finally organized, the Mobile Riverine Force consisted of an Army element, the 2nd Brigade of the 9th Infantry Division, augmented in mid-1968 by the 3rd Brigade, and a Navy element."²⁹ The MRF additionally utilized other available Allied forces, who made significant contributions to the

force as a whole, including "the Seventh Division, Army of the Republic of Vietnam (ARVN) and temporarily incorporated the Fifth Vietnamese Marine Battalion."³⁰

On the Navy side of the team, previous French river assault and current SVN RAG experience indicated that:

It was best to form U.S. Navy River Assault Squadrons (RAS) . . . designed to lift and provide fire and logistics support for one reinforced infantry battalion. It consists of 51 boats: 2 command boats, 6 monitors, 26 Armored Troop Carriers (ATC), 1 refueler (all the foregoing are converted LCM-6s), and 16 Assault Support Patrol Boats (ASPB), a new design.³¹

The only critical command and control problem, and it was quickly overcome by professionalism on both sides, was the lack of a local commander who was in charge of both components. The first common commander in the chain of command for both Army and Navy riverine forces was General Westmoreland (COMUSMACV). This situation caused problems, and "While the problem of command relationships did not inhibit the operations of the Mobile Riverine Force, it was a tender point in the conduct of all activities."³² The reason for the lack of a single local commander came from Westmoreland's decision to place the 9th Division under the III CTZ Senior Advisor to "facilitate tactical operations along the III and IV Corps border."³³ This unnatural relationship was intended to facilitate coordination of ground force major operations in both zones to stop the Viet Cong from evading a campaign in one CTZ by moving into another. This decision in effect bastardized the entire chain of command, forcing the Army component chain of command to fall under two separate CTZ Senior Advisors, while the Navy chain of command remained independent of both and ran up through NAVFORV to COMUSMACV. As one can imagine, had local Army and

Navy force commanders not exercised extreme professionalism and cooperation concerning this chain of command issue, the effectiveness of the entire operation could have been in serious jeopardy. Fig. 10 shows command, support and coordination relationships between units.

Individual riverine craft were commanded by enlisted men, divisions were commanded by junior officers, and squadrons were commanded by mid-grade officers. An interesting twist in the relationship between Army and Navy components was that "the Mobile Riverine Base [MRB was] under the overall command of the senior Army officer embarked, an arrangement of the Navy's choosing, not the Army's."³⁴ This was due to the fact that once the MRB was anchored in the center of the river, an area security plan was put in place on both shores. This security force included infantry perimeters, outposts and foot patrols all reinforced with artillery. The only part of MRB security the Navy provided was counter-mortar radar from the barracks ships and boat patrols to counter swimmer, mine, and suicide boat threats. By far, the bulk of the security effort rested with the Army.

In the creation of initial tactics and training, MRF planners could and did draw upon earlier United States, French, and SVN experience. From previous Game Warden encounters with the enemy, U.S. leaders knew that enemy tactics included the use of mines, swimmers, recoilless rifles, rockets, ambushes, mortars, and booby traps.³⁵ MRF tactics also drew on U.S. amphibious doctrine, examination of previous French Dinassault use in Vietnam for limited riverine amphibious assault, and South Vietnamese River Assault Group (RAG) lessons learned for the most current riverine assault experience. The imperfections of

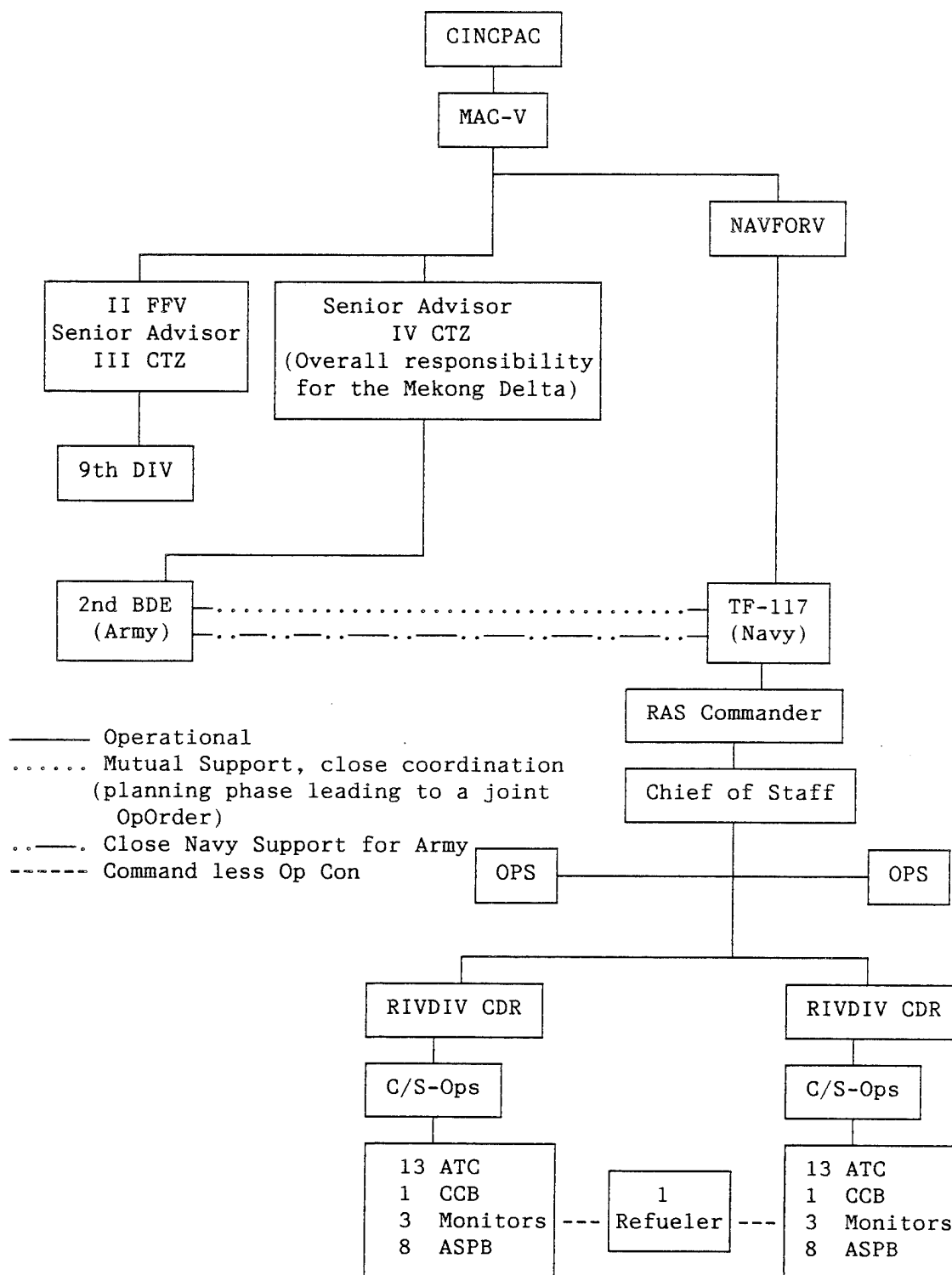


Fig. 10. Command Structure of the MRF and Riverine Assault Squadrons. From Scott McDonald, "Riverine Warfare: How the Services are Meeting the Delta Test," Armed Forces Management 14(May 1968), 45-46.

previous Allied operations was also scrutinized to gain every tactical advantage. Gleaned from Game Warden and Market Time lessons learned, all operations were coordinated with local forces and maximum use of air support and artillery was integrated from the beginning. "The activities of the Mobile Riverine Force, in fact, were directly related to the total land campaign being conducted in both III and IV tactical zones."³⁶ Other tactical elements included "softening up" landing areas by fire and the use of airmobile units as the reserve for quicker response time.

Another idea that was expanded upon, of necessity since sufficient shore basing did not exist for the required number of assault troops, was the afloat basing concept. In addition to the obvious benefits of basing both Army and Navy parts of the force together, this scheme brought great advantages in mobility, reduced security requirements, enabled close coordination and improved morale. The afloat basing concept was crucial to providing a quick response with a large force, which, in turn, was critical to effectively engaging such an elusive irregular force. "Because of the bold and frequent movement of the large Mobile Riverine Base from which strike operations could be launched with ease, the element of surprise so important to combat success was achieved."³⁷ The magnitude of this capability can only be fully understood when considering that a "force of approximately 5,000 men, . . . could be moved from 100 to 200 kilometers in a 24-hour period and could then launch a day or night operation within 30 minutes of anchoring, its true potential is apparent."³⁸ Barge housing also provided creature comforts not available in U.S. Army field units, such

as hot meals and air conditioning, which resulted in high morale. The reduced coordination requirements of collocation further enhanced the ability of Army and Navy planners to rapidly adapt to changing situations. Close coordination also enabled efficient and effective compensation for unanticipated shortfalls, such as those encountered in personnel "on station" time and movement requirements. Initial MRF operations were planned for five days, but the harsh environment cut troop endurance down to two days followed by the need for a full day of rest. Due to operational success and security requirements, MRB base location shifts were also shortened to ten-to-fourteen days from the original plan of six weeks.

Not surprisingly, in standing up a joint force with no single local commander in charge, supply issues were initially a problem. Naturally, the dispute over which service supplied what items became so embroiled that "difficulties were [even] encountered in the obtaining of common supply support from the Army."³⁹ As the debate traveled up the parallel chains of command, the Navy determined that "with a minimum of additional resources, the Naval Support Activity, Saigon, would be able to extend logistical support and services to this large new force in addition to the others being supported."⁴⁰ Since IV CTZ was already dominated by Naval Forces and the waterway and aerial resupply lines were established, the Navy voluntarily assumed the task of MRF general sustainment. The Commander of the Army component lauded Navy efforts and cooperation across the board, stating:

Part of the subsequent success of the force stemmed from the professional manner in which the Navy fulfilled its obligations. In the case of logistics, support was given not only by units in

Vietnam. . . but also by other units of the logistic support system.⁴¹

In contrast to Task Force 116 (Game Warden), the evolutionary process was much more extensive in MRF operations and the planners put the developmental wheels in motion even before operations actually began. Just as before, however, evolution involved tactics, techniques and technology. The technological change encompassed new equipment as well as modifications of existing assets. The most notable modifications were made to riverine craft. Some modification needs were revealed in combat, but others were wisely anticipated by the analysis of previous operations:

Extensive modifications, based on the lessons learned from the Vietnamese RAGs, were made to the LCMs to convert them to river assault craft. Additional buoyancy, armorplate [sic], bar armor (for breaking up HEAT rounds), and armament were included in the modification.⁴²

March 1967 marked the arrival of the newly converted Armored Troop Carriers (ATCs) for the MRF.

Further additions, borne of ingenuity and combat necessity, continued to evolve throughout the campaign. ATC crews welcomed the addition of two 20 millimeter aircraft cannon; a Mk19 40 millimeter grenade launcher; and an armored helicopter pad for medivac, refuel, and rearmament. Construction of an "armor plate-concrete 'sandwich'" around the quarterdeck was devised to protect the crew against small arms and heavy automatic weapons. The "Monitor" was the battleship of riverine craft and modifications replaced the 40 millimeter cannon with the M49 105 millimeter howitzer turret, allowing it to fire nine different round types. It also incorporated two 20 millimeter aircraft cannon in the

Mk48 mount, and some installed a flamethrower in the forward mount. An article written in 1969 chronicled the evolution of yet another craft:

The command and communications boat (CCB) evolved from primitive origins into a highly mobile, sophisticated, versatile, and comfortable tactical operations center. Air-conditioning, coding devices, intricate navigational equipment, and greatly increased radio capability, including UHF, SSB, and FM equipment, are only a few of the improvements which have increased their usefulness.⁴³

These previously mentioned riverine craft modifications generally utilized proven hardware and were very successful.

The race to adapt new technology did not, in all cases, meet with immediate success. The Assault Support Patrol Boat (ASPB) was a new design created specifically for MRF operations and despite glowing reports from Navy designers involved in stateside testing and bold manufacturer claims, it was a dismal failure upon initial introduction into the Delta. In an effort to make the armor plate hard and light, manufacturers inadvertently made it brittle which produced a lethal shower of shrapnel when hit with recoilless rifle rounds. Other problems cited included: poor welds, "which caused whole sections of plate to break loose even when enemy rounds failed to penetrate it"; forward gun turret sighting ports that would fog up; a bow wave suppressor that was designed to "keep excessive spray off the forward guns . . . [which drove] the bow down when it bit into a wave or wake." Following mounting instances of unnecessary friendly fatalities, and the sinking of one craft from the latter deficiency, the Navy component commander was "outraged":

In his reminiscences, Vice Admiral Robert S. Salzer, who commanded the Riverine Assault Force during the period of its heaviest engagement with the enemy . . . "sent out a message to CNO and BUSHIPS and CINCPACFLT and everybody else and said I was withdrawing

all the ASPB boats from combat because they were a safety menace.⁴⁴
.. " Eventually, the ASPBs were refitted and returned to combat.⁴⁴

After refit, the ASPB became an excellent addition to the force.

The three most amazing adaptations of existing equipment were in the placement of artillery on barges and on helicopter transportable platforms, and the creation of an integrated Command and Control/Damage Repair boat. This boat was established to provide: a Senior Engine Mechanic; tools and spare parts to perform repairs beyond the capabilities of organic boat crews at the site of combat operations; and to provide additional command and control functions to assist in multi-site units, such as artillery and separate battery operations.⁴⁵

Another significant adaptation of existing equipment was "the infrared sensor, well suited for battlefield surveillance . . . [and] also able to serve in a target acquisition role."⁴⁶ Other developments included placing an engineer flamethrower vehicle on LCMs, "anti-ballistic flak curtains, more seaworthy ASPBs, infrared and 'starlight' sniper teams."⁴⁷

Adaptation of existing equipment often involved both technique and technological evolution. It was often difficult to distinguish the impact of these two evolutionary processes separately and many improvements seemed to generate their own continuous cycle of perceived need for further improvements. An excellent example of this phenomenon is found in the CTF-117 OPORD dated 15 May 1968 which lists the following lessons learned concerning specific craft:

- Space on board the CCB is at a premium. Radio circuits installed have proven inadequate to fill all the needs of a battalion/squadron command and control installation. The use of additional PRC-25 radios has become necessary. It has also proven unworkable to co-

locate battalion/squadron, and division command and control on a single CCB.

- The monitor has proven an effective offensive weapon. It must also serve as a division command unit due to use of the division CCB as the battalion/squadron command unit. There is not sufficient radio equipment installed to allow the division to guard desired circuits.

- The ATC performs very well in the mission for which it was designed, transportation of troops. When used as a minesweeper or an offensive weapons system it falls short of the mark.

- In general all squadron boats are performing their designed mission and in addition are called upon to act as offensive vehicles with increased regularity. If this trend is to continue, weapons with increased penetration and anti-barrier capability will have to be added to the squadron's arsenal.⁴⁸

In the environment of riverine operations, where the enemy often sprang the ambush from extremely close range, the necessity for multi-role craft became increasingly important.

Of the myriad of technique changes developed during MRF operations, three of them had large tangible positive effects. The first was in troop handling, which dramatically improved with the use of Ammi pontoons for troop staging and mooring of craft alongside. The previous method of over-the-side wet nets was very slow and hazardous. The second technique change was instituted in May 1967, marking the first embarkation of battalion medical aid teams aboard designated ATCs, which made a major impact on the survivability of wounded personnel. The final instance, "the use of a helicopter landing barge as an integral part of the forward brigade tactical command post,"⁴⁹ brought significant increases in the ability to effectively handle time critical Command/Control and coordination issues. Although not as far reaching as those previously mentioned, one of the most interesting techniques developed from scratch was the counter to the swimmer threat which plagued vulnerable barge based artillery when operating for extended

periods in a fixed location. One Army Officer, the Company Commander, swam toward an artillery barge while grenades were periodically tossed into the water and at "twenty yards from the explosion pain in the chest developed, but was not disabling. The eardrums of a swimmer [with his head under water] would have been punctured at this distance."⁵⁰

Through further testing of different grenade types, it was determined that concussion grenades, dropped at irregular intervals, were excellent for countering this threat.

Tactical evolution was just as extensive, ranging from the composition and order of river craft during transport operations, to containing an enemy determined not to engage Allied Forces. MRF planners attempted to anticipate every possible VC threat that could have a significant impact on MRF operations instead of reacting to enemy tactics encountered. One such instance of excellent foresight appeared in the CTF-117 Intelligence Estimate for Defense of the MRB citing "Suicide Boats" as a possible VC capability, but stated that:

No evidence has reached this command of actual or contemplated VC usage of suicide boats against ships. This possibility cannot be disregarded, however. Alert boat patrols, perimeters, and ship-board sentries can considerably ameliorate this threat.⁵¹

Since this enemy tactic was never employed, one can only speculate that these safeguards possibly prevented the attempt.

Another important case of tactical evolution that also involved Command and Control challenged traditional Navy doctrine in the transport and embarkation of assault troops. Instead of exercising operational command, the Navy was in a direct support role, because "the traditional amphibious doctrine, that the Navy retains operational control until the landing force is established on the beach, [was] not

practical in the riverine environment."⁵² Since troops often debarked and embarked many times over a period of days, and Naval units generally served as only a blocking force or in a fire support role in the overall operation, the nature of MRF operations yielded itself more readily to Army C2 methods, training, and capability.

Innovation in and of itself is not a separate category of evolution, but often serves as the impetus for many of the established evolutionary processes and can be easily incorporated into those discussion areas. One instance of innovation, however, that does not fit cleanly into any of the previously mentioned areas and had major implications involved "the decision of Secretary of Defense McNamara in late 1966 to cut the requested number of self-propelled barracks ships by three."⁵³ The effect of this decision could have been disastrous if the Navy had not been innovative. This decision only left enough berthing for one of the three infantry battalions, so the Navy provided a larger class LST (Landing Ship, Tank) and an APL (Non-self-propelled Barracks Ship) to compensate for the loss. Countless cases of innovation were chronicled in the conduct of MRF operations such as the placement of artillery on barges or paddy platforms, placing a flamethrower or howitzer on an ATC, use of helicopters for C2, and regular occurrences of innovation in combat. The determination to succeed, professional attitudes, and mutual cooperation displayed by both services is what fostered the environment that promoted innovation and ultimately enabled the MRF to overcome potentially disastrous difficulties and achieve a high degree of tactical success.

Task Force 116 and 117 were two entirely separate commands with very different missions and areas of responsibility. One significant wrinkle did exist, however, in the clearly defined and distinct AOs/lines of responsibility assigned to Game Warden and the MRF. During and immediately following the TET offensive, "the fierce battles raging in Hue and at threatened Khe Sanh made it absolutely imperative that lines of communication (LOCs) to U.S. forces engaged in these places be maintained."⁵⁴ As a result, TF-116 and TF-117 assets were sent as a combined effort to begin security and supply escort missions along the Perfume and Cua Viet rivers near the DMZ, giving birth to Task Force Clearwater. These operations endured some distinct hardships, such as being based ashore, conducting missions along fixed routes and encountering consistently heavy enemy resistance. But since the operation was relatively limited in scale and scope, they will not be addressed separately. For completeness, evolutionary issues identified in Task Force Clearwater operations were incorporated into the Game Warden and MRF sections to which they applied.

Results

Although the MRF was operationally and tactically very successful, strategic objectives came into play after the first year of operations and eventually neutralized MRF offensive capability. The MRF operated from February 1967 to August 1969. The first year met with promising success. In fact, most literature published on the Mobile Riverine Force agrees that "its presence in 1967 and 1968 tipped the balance of power in the northern portion of the Mekong Delta in favor of the U.S. and South Vietnam forces."⁵⁵ However, that shift in power

came at the expense of the pacification program, which was touted to be the number one priority in the Delta by COMUSMACV. Not surprisingly, the second year was confined to pacification operations in a single province, due to "a renewed emphasis on pacification [that] shifted the strategy away from strike operations. In fact, "during the late summer of 1968 helicopters for troop lift were almost eliminated from support of the force."⁵⁶ Finally, the last six months saw the MRF reduced to ineffectiveness through large scale asset transfers to Operation SEALORDS or turn-over to the South Vietnamese.

During the earlier productive period, the most significant successes achieved were that the MRF enabled the Allies to penetrate many previously held enemy territories, seize the offensive, and deny the enemy sanctuary from which to base logistics and forces in the Southern Delta region. "These were essentially strike operations against remote enemy base areas that in some instances had not been penetrated for two or three years."⁵⁷ The greatest advantage of MRF operations was their extreme versatility, mobility and ability to mass firepower which became critical in countering the January 1968 enemy offensive. Specifically, following the TET Offensive, "General Westmoreland himself credited the MRF with having 'saved the Delta.'"⁵⁸ The successes of the MRF can be traced back to exceptional coordination and integration of assets. The complete integration of local water, land and air assets resulted in spectacular and unusual successes like "RivDiv 92 saving an ambushed infantry company from annihilation . . . [and] ten-to-one in kill ratios."⁵⁹

Regrettably, these great operational and tactical level successes came at great expense to the ultimate strategic aim of pacification. An attempt to fix the counterpacification problem was Change 26 to 9th Infantry Division Field SOP issued 27 April 1967 stating that:

Because of the VC propaganda exploitation of any noncombatant casualties and incidents caused by US/FWMAF and the resultant resentment and alienation of the people, these casualties and incidents must be prevented at all levels. . . . Prestrikes in populated areas, reconnaissance by fire into civilian occupied hamlets, and poorly selected harassing and interdiction fires are examples of military measures which are detrimental to the overall war effort.⁶⁰

This effort, however, was too little too late and failed to fully analyze and integrate the requirements of pacification into the operational game plan on the whole. The primary strategic object in the Delta was pacification and could be very quickly undermined by the indiscriminate nature of search and destroy missions. This becomes obvious in retrospect. The greatest care was needed in the performance of this type of mission and every effort made at inception to integrate significant safeguards into the campaign plan. Although the SOP change cited above was issued less than three months after operations began, its scope was limited and significant damage to the pacification effort was already done. The change needed to be much more comprehensive and integrated from the start.

Continuity and Analysis

Although the MRF was the third type of operation, Market Time and Game Warden operations continued unabated. As will be seen in the next chapter, all three operations continued to be conducted for a

significant period of time during SEALORDS even though that campaign combined their missions into one well coordinated effort. Notwithstanding Game Warden and MRF operational success at the tactical and operational levels of war, MRF operations conflicted with the ultimate strategic objective of pacification in the Delta and thereby detracted from the Allied war effort there.

The TET Offensive in January 1968 proved that the VC were still able to move significant quantities of supplies into the Delta despite the efforts of Market Time, Game Warden and the Mobile Riverine Force. There is no doubt that these operations greatly restricted enemy operations in the Delta, but it became painfully obvious that until supply routes through Cambodia were severed, Allied efforts would not be totally effective. Both of the latter operations achieved great success at the tactical and operational levels of war. However, as stated in the Bucklew Report, poor coordination or guidance at the strategic level by not interdicting infiltration routes through Cambodia kept these heroic efforts from realizing any lasting effect. In addition, the concept of the MRF, without finding a means of integrating the higher level pacification objective, was doomed to failure from the start. As Commander R. L. Schreadley, Director of COMNAVFORV Special History Project, Vietnam, states:

What the MRF lacked, what the strategy of search and destroy lacked, was a clear means to discriminate between friend and foe . . . it was next to impossible to engage in search-and-destroy operations in the populous delta without inflicting grave damage on those whose "hearts and minds" were the great prize in the war.⁶¹

A further U.S. strategic failing, even if the MRF had found the means to discriminate between friend and foe, was the lack of proper

coordination between U.S., SVN military and civilian efforts so critical to this type of war. In 1968, the Center for Naval Analyses cited the futility of these endeavors without the proper strategic orchestration to pull them all together:

The significant gap between the progress made by MRF and Game Warden and the static or regressing pattern of pacification in the Delta is . . . the direct result of a lack of strategic and tactical coordination at a much higher level. . . . search and destroy actions against main force units must be followed by clear and hold operations. . . . Otherwise, the resources expended in the initial assault operations will bring little return and the same operations will have to be repeated endlessly.⁶²

When facing an elusive irregular force utilizing guerilla tactics, established methods of regular warfare must be altered, adapted, closely and quickly coordinated, and integrated into a cohesive military and civilian national effort. To rely on a generally rigid approach which utilizes regular forces to try to counter this type of threat, is to court defeat from the very outset. Luckily, a forward thinker entered the scene in the Mekong Delta in the form of Admiral Zumwalt, Commander Naval Forces Vietnam (COMNAVFORV). He quickly realized that "the concept of a static barrier on the major rivers of the Delta and RSSZ [(Rung Sat Special Zone) had] proven to be inadequate."⁶³ Under his direction, the Game Warden concept was expanded when Sea Lords began in October 1968. Admiral Zumwalt stated in his briefing which kicked off operation SEALORDS in November 1968:

You have to make up riverine warfare as you go along . . . keep changing the game plan . . . you can get away with almost anything once or even twice, but you must change strategies frequently in order to keep the enemy from exploiting you.⁶⁴

Under this sound and capable strategic level leader, Operation SEALORDS went on to make vast improvements in Allied combat capability and effectiveness in the Mekong Delta.

Endnotes

¹Commander, River Patrol Force (CTF 116) GAME WARDEN, Operation Order 201 YR, in J. Mintz, "Game Warden, Mobile Riverine Force and Revolutionary Development Operations in the Delta," INS Research Contribution No. 26 (AD 500 967) (Washington, DC: Institute of Naval Studies, Center for Naval Analyses, June 1968), 6.

²Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analyses, 1976), 24.

³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1966 (Washington, DC: Naval Historical Center, 1966), 30-31.

⁴Commander Task Force 116 Operation Order, COMRIVPATFOR No. 201-YR (Can Tho, Vietnam: 1 February 1967), page 6 of Appendix II to Annex B.

⁵Thomas J. Cutler, Brown Water, Black Berets (Annapolis, Maryland: Naval Institute Press, 1988), 166.

⁶Cutler, 166.

⁷Cutler, 166.

⁸Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, January 1966 (Washington, DC: Naval Historical Center, 1966), 17.

⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, January 1966 (Washington, DC: Naval Historical Center, 1966), 18.

¹⁰R. L. Schreadley, From the Rivers to the Sea (Annapolis, MD: United States Naval Institute, 1992), 101.

¹¹Edwin Bickford Hooper, Mobility, Support, Endurance: A Story of Naval Operational Logistics in the Vietnam War, 1965-1968 (Washington, DC: Naval Historical Center, Department of the Navy, 1972), 141.

¹²"Game Warden," E-3.

¹³Hooper, 143.

¹⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1966 (Washington, DC: Naval Historical Center, 1966), 18.

¹⁵Ibid, 18.

¹⁶From the Rivers to the Sea, 101.

¹⁷Department Of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1966 (Naval Historical Center, 1966), 15.

¹⁸Victor Croizat, The Brown Water Navy: The River and Coastal War in Indo-China and Vietnam, 1948-1972 (Dorset, England: Blanford Press, 1984), 122.

¹⁹Virginia Conn, "The Brown Water Navy," Navy, 12(March 1969): 19.

²⁰Norman Friedman, U.S. Small Combatants (Annapolis, Maryland: Naval Institute Press, 1987), 314-316.

²¹"Game Warden," 4.

²²"Game Warden," 5.

²³"Game Warden," 4.

²⁴"Game Warden," 5-6.

²⁵Jerry Riggs, "U.S. Minesweeping Boats Keep Clear the River to Saigon," Navy Magazine (May 1967: 15-18), 16.

²⁶Department of the Navy, Progress Appraisal Division, Effects of the Termination of Dedicated Air Support on VNN Game Warden Operations (Johnsville, PA: Naval Air Development Center, October 1970), II-1.

²⁷United States Navy, "River Patrol: The Small Boat Navy" (Nashville, Tennessee: Cumberland Marketing International, Inc., 1968).

²⁸Commander Task Force 117 Operation Order (CTF 117 OPORD No. 201-YR) (USS BENEWAH, Flagship, Message Ref: 150001H May 68), 7.

²⁹Edward J. Marolda and G. Wesley Price III, A Short History of the United States Navy and the Southeast Asian Conflict 1950-1975 (Washington, DC: Naval Historical Center, Department of the Navy, 1984), 56.

³⁰C. L. Horowitz, "Comment and Discussion," U.S. Naval Institute Proceedings (November 1969: 116-118), 118.

³¹William H. Cracknell, Jr., "The Role of the U.S. Navy in Inshore Waters," (Thesis, Naval War College, 1968) Naval War College Review, 21(November 1968: 65-91), 81.

³²William B. Fulton, Vietnam Studies: Riverine Operations 1966-1969 (Washington DC: Department of the Army, 1973), 187.

³³Vietnam Studies: Riverine Operations 1966-1969, 46.

³⁴Cracknell, 82.

- ³⁵CTF-117 OPORD, C-7 through C-12.
- ³⁶Vietnam Studies: Riverine Operations 1966-1969, 189.
- ³⁷Vietnam Studies: Riverine Operations 1966-1969, 190.
- ³⁸Vietnam Studies: Riverine Operations 1966-1969, 187.
- ³⁹Hooper, 142.
- ⁴⁰Hooper, 147.
- ⁴¹Vietnam Studies: Riverine Operations 1966-1969, 45.
- ⁴²Cracknell, 81.
- ⁴³Melville L. Stephens, "Comment and Discussion," U.S. Naval Institute Proceedings (November 1969): 116.
- ⁴⁴From the Rivers to the Sea, 108-109.
- ⁴⁵Department of the Army, Combat Developments Command Operational Report - Lessons Learned (Fort Belvoir, Va: November 1969), 2.11.
- ⁴⁶Lessons Learned, 2.12.
- ⁴⁷Stephens, 116.
- ⁴⁸CTF-117 OPORD, P-4.
- ⁴⁹Vietnam Studies: Riverine Operations 1966-1969, 186.
- ⁵⁰Lessons Learned, 2.8.
- ⁵¹CTF-117 OPORD, E-VI-2.
- ⁵²Cracknell, 82.
- ⁵³Vietnam Studies: Riverine Operations 1966-1969, 186.
- ⁵⁴From the Rivers to the Sea, 139-140.
- ⁵⁵Vietnam Studies: Riverine Operations 1966-1969, 193.
- ⁵⁶Vietnam Studies: Riverine Operations 1966-1969, 191.
- ⁵⁷Vietnam Studies: Riverine Operations 1966-1969, 190.
- ⁵⁸From the Rivers to the Sea, 139.
- ⁵⁹Horowitz, 117-118.

⁶⁰Department of the Army, Senior Officer Debriefing Report
Commanding General, 9th Infantry Division, USARV, 1 June 1967-25
February 1968 (Washington, DC: 14 March 1968), A-10-1.

⁶¹From the Rivers to the Sea, 103.

⁶²J. Mintz, "Game Warden, Mobile Riverine Force and Revolutionary Development Operations in the Delta," INS Research Contribution No. 26 (AD 500 967) (Washington, DC: Institute of Naval Studies, Center for Naval Analysis, June 1968), 21.

⁶³"Game Warden," 4.

⁶⁴Cutler, 286.

CHAPTER 4

RIVER FORCE MATURITY

Prior to assuming Command of Naval Forces Vietnam (COMNAVFORV), Vice Admiral Zumwalt traveled throughout the Mekong Delta and adjoining coastal areas to observe ongoing operations. From that tour of the area of operations (AO), he deduced that the force as a whole was under-utilized and suffered from poor morale brought about by the routine and often monotonous pattern that patrol or search-and-destroy missions had become since the enemy had assumed a generally evasive posture after the TET Offensive. Despite previous Allied efforts, the TET Offensive had made it painfully obvious that the enemy was still a viable force in the Delta and continued to retain significant logistics capability. Zumwalt states in his memoirs what the Navy assessment of the situation was:

[The Navy Assistant Chief of Staff for Intelligence] had completed an analysis of the entire Viet Cong logistics system that proved to be more accurate than anything either CIA or DIA had. He . . . conclude[d] that Cambodia had become the major logistics depot for the Viet Cong delta operations and that this depot was being reinforced by Communist shipping into Sihanoukville. . . . Since we had choked off the main rivers, all supplies and reinforcements from the Ho Chi Minh Trail to the Viet Cong in the delta were ferried across or sometimes even carried on those remote waterways.¹

Zumwalt concluded that the three independent Task Forces (115, 116, and 117) needed to be combined and closely coordinated to achieve a truly cohesive effort in the Delta.

To revitalize the force, the new Naval Force Commander resolved to seize the initiative by assuming a more offensive posture and keeping

the enemy off balance by continually "changing the game plan." Specifically, Zumwalt decided to focus on three primary objectives: to conduct coordinated operations to stop enemy infiltration and enhance pacification, to wrest the initiative from the enemy in the Rung Sat Special Zone and other enemy sanctuaries, and to accelerate the Vietnamization process.² He further determined that "a concerted and innovative psychological operation might succeed in winning the people to active support of the government of Vietnam, the majority of whom were judged to be apolitical."³ As a result, elements from all three major Task Forces (115, 116 and 117) were combined to create Task Force 194 to execute the comprehensive new Southeast Asia Lake, Ocean, River, Delta Strategy (SEALORDS).

Introduction

The SEALORDS campaign was quite extensive, covering a 21-month period from October 1968 through June 1970 and over twenty one major operations. The chronology of operations and significant events within the SEALORDS campaign are as follows:

October 1968	SEALORDS officially begins
	Market Time Raider
November	Search Turn
	Foul Deck
December	Giant Slingshot
	Silver Mace I
	ACTOV
January 1969	Barrier Reef
February	Keel Haul I
	Sea Tiger
	Post-TET Enemy Offensive
April	Black Ponies
	Silver Mace II
	Keel Haul II
	Duffle Bag
May	Caesar II
	Bushwack I

June	RSSZ Operations
	Sea Float
	John Silver
July	Mang Thit-Nicolai
	Double Shift
August	Border Interdiction Campaign
September	Breezy Cove
October	Ready Deck
	Solid Anchor
	Deep Channel
December	Mobile Water Traffic Checkpoint (MWTC)
January 1970	Deep Channel II
May	Cambodia Incursion
	Blue Shark
	Admiral Zumwalt relieved
June	SEALORDS deactivated

For ease of study, these operations/events can be more easily grouped into four general categories in terms of AO or type of mission conducted. These categories are: Border Interdiction Campaign, Raid/Assault, Ca Mau, and Waterway Security. The Border Interdiction Campaign category encompasses the major operations of Search Turn, Foul Deck, Giant Slingshot, and Barrier Reef which physically constituted the interdiction barrier just south of the Cambodian border (fig. 11). Also included in this category are the more minor operations that directly supported the interdiction campaign: Keel Haul I and II, Double Shift, and Deep Channel I and II. The Raid/Assault category encompasses Market Time Raider, Rung Sat Special Zone (RSSZ), Caesar II, Cambodian Incursion, and Blue Shark operations. The Ca Mau category encompasses the assault, patrol and Allied base establishment operations of Silver Mace I and II, Sea Float, Breezy Cove, and Solid Anchor which were conducted in the Ca Mau Peninsula area (fig. 12). The final category of Waterway Security encompasses Ready Deck, Mang Thit-Nicolai, Mobile Water Traffic Checkpoint, and Sea Tiger operations which were conducted to open vital trans-delta waterways for commercial use and reinforce

Task Force Clearwater operations in I CTZ. The Post-TET Enemy Offensive will be discussed in the section that deals with enemy tactics and evolution following the operational review. Black Pony discussions are split between two areas: the section entitled "Problems" which addresses those encountered for the entire SEALORDS campaign and the "Technology Evolution" section which also includes operations Duffle Bag and John Silver. Identification of enemy evolution, problems encountered by the force as a whole, technology evolution, tactics evolution, and technique evolution follow the operational discussion. The final portion of the chapter will include the campaign overall results and an analysis.

Campaign Overview

SEALORDS operations began under COMNAVFORV OPLAN 111-69 promulgated 5 November 1968. The published mission of SEALORDS was to

Conduct aggressive naval operations in order to assist the government of Vietnam in expanding control throughout III and IV combat tactical zones (CTZs) and contiguous zones. Specifically, SEALORDS forces are to (1) maintain naval superiority on the inland waterways and contiguous waterways, (2) interdict the enemy's communication-liaison routes, (3) conduct coordinated counter infiltration operations in coastal and inland waterways in III and IV CTZs, (4) conduct operations to open and pacify assigned riverine areas essential to military, economic and political efforts, and (5) conduct coordinated and combined offensive operations in conjunction with friendly forces to destroy enemy forces, base areas and logistics systems by riverine and coastal assault raiding operations.⁴

Indicative of the aggressive manner in which the entire SEALORDS campaign was conducted, "Penetration of rivers in the Ca Mau Peninsula [a long-standing VC stronghold] . . . actually began [in Market Time Raider operations] before the formal proposals to SA [Senior Advisor] IV CTZ."⁵ Admiral Zumwalt required audacity, aggressiveness, innovation,

total asset integration, flexibility, and close coordination from his entire command and the campaign was greatly enhanced by it.

When the SEALORDS campaign was launched in October 1968, Allied naval forces were at peak strength. Task Force 115 operated 81 Swift boats, 24 Coast Guard WPBs, and 39 other vessels; Task Force 116 deployed 258 patrol and minesweeping boats; Task Force 117 wielded a 3,700-man Riverine Assault Force including 184 monitors, transports, and other armored craft; the HAL 3 squadron flew 25 attack helicopters; five SEAL platoons were available for operations in the delta; and the Vietnamese Navy had a fleet of 655 ships, assault craft, patrol boats, and other vessels.⁶ To succinctly integrate assets from all of these sources while improving efficiency and effectiveness, U.S. Task Force/VNN Navy areas of operations and missions had to be altered and blended. As outlined by Commander Schreadley:

Assets could be made available through a lessening of Market Time PCF patrols, which would permit the Swift boats to assume new responsibilities in the lower rivers and to undertake the raider incursions. The PBRs relieved on the lower rivers could then be employed on the proposed [northern Delta interdiction] barriers.⁷

This alteration and reallocation of TF 115 assets was not particularly reckless, since Market Time had long since "pacified" the coast. The rapid expansion of the SEALORDS campaign was clearly identified in the March 1969 Navy Monthly Historical Summary:

Operation SEA LORDS began as a series of special operations supporting the IV Corps dry-season campaign; it achieved such significant results that the original concept has been expanded into permanent interdiction, pacification, and river raid campaigns. Austere support facilities are being replaced with new base construction along the interdiction patrol areas. In addition to expanded logistics facilities, other support areas such as intelligence, planning, and communications have been improved or adjusted to meet the needs of an operation comparable in dimension of effort to either normal MARKET TIME or GAME WARDEN activity.⁸

The size of the SEALORDS force structure, made possible by reallocating assets, was much greater than anything seen before. Task Force 116 section of the October 1969 Monthly Historical Summary provides a typical quantification of this additional force structure, recounting that "a majority of [Game Warden] PBR's (140 out of 180) were engaged in the support of Sea Lords campaigns Giant Slingshot, Barrier Reef, and the newly activated Ready Deck."⁹ When considering the additional temporary forces provided from all three Task Forces and VNN assets, SEALORDS grew nearly three-fold and dwarfs previous riverine campaigns in comparison.

As a general overview of the conduct of the campaign, barrier operations were established in November 1968 along major canals and rivers paralleling the border with Cambodia. To enhance Allied patrol, interception, and ambush operations, the U.S. Navy established a sophisticated network of electronic sensors along the barriers. In the second phase, launched in April 1969, combined forces struck at the Viet Cong in their previously inaccessible delta strongholds in the Ca Mau Peninsula, the U Minh Forest, and the mangrove swamps at the mouth of the Mekong. The Allied presence in these enemy "rear" areas was maintained from river mouth operating bases and a floating base anchored in the middle of the Cua Lon River. The final phase, initiated in January 1970, began the greatest portion of the ACTOV program.¹⁰

Due to the distances encountered in the northern Delta interdiction barriers, and low bridges along the smaller rivers that blocked support shipping above Tan An and Ben Luc, a new basing system was required for this type of warfare:

These were called advanced tactical support bases (ATSB). Sites close to existing Army of the Republic of South Vietnam (ARVN) or U.S. Special Forces compounds were used, to take advantage of the security from attack they would provide. An ATSB was to be a small, quickly-constructed unit, which could provide basic berthing and messing facilities, and operational support. Each was designed to support a 10-boat, 65-man, PBR division augmented by up-to-six river assault craft. Two types of bases were planned--one to be constructed all on shore where land was available; and a floating base built on pontoons in swampy areas. In some cases, a combination of limited land and pontoons was used.¹¹

Living conditions were understandably austere and life hard for the sailors at an ATSB; however, one Navy Commander stated that morale remained "generally high."¹²

Accelerated Turnover to the Vietnamese

President Johnson called General Abrams home to instruct him to get just such a program [Vietnamization] under way. . . . Nothing could have suited my own inclinations more. . . . I devised a program I called ACTOV, a labored acronym for Accelerated Turnover to Vietnam that I chose because it sounded like "active," which was what I wanted the program to be. However, my desire to turn the in-country U.S. naval operation over to the Vietnamese was accompanied by an equally strong desire to increase the scope and effectiveness of that operation.¹³

Vice Admiral Elmo R. Zumwalt, Jr., Commander Naval Forces, Vietnam

Just as Zumwalt's aggressive and innovative nature pervaded SEALORDS operations on the whole, ACTOV also clearly displayed these traits. Although ACTOV was not officially accepted by the secretary of defense until 12 February 1969, COMNAVFORV implemented several measures to immediately begin integration of the VNN into the SEALORDS campaign and instructed the First Sea Lord via message on December 1968 that "VNN PCFs be employed by themselves in incursions in the Gulf of Thailand AO."¹⁴ He also requested that VNN forces be combined with USN forces

in future operations. On 27 December 1968, two VNN PCFs began transiting the Cai Lon River.

This program attempted to turn over all U.S. Navy operations to the South Vietnamese Navy by June 1970 and assets by 1972. The Naval Advisory Group was tasked with the training and integration of Vietnamese forces into U.S. Navy dominated coastal defense and riverine operations. The process of turning assets and operations over to the South Vietnamese was initially designed to train and transfer whole units and craft until the SVN had a sufficient number to support an operation, at which time the operation itself was to be transferred. This process proved to be very time consuming and inefficient. Since the new COMNAVFORV strongly encouraged innovation at all levels of command, innovative methods were soon tested and implemented to speed the process of training and transfer of operations/assets. For example, in the START program, advisors color-coded engine room pipes and used arrows to indicate direction of flow.¹⁵ This method drastically reduced time-to-train by bridging the language barrier and removing the need to spend exorbitant amounts of time on learning basics. Another far-reaching example of the innovative techniques implemented in ACTOV was that on the advice of Captain Price, Commander of Operation Giant Slingshot, on-the-job-training (OJT) was implemented to speed the process of turning over entire units. This sequential process placed one VNN sailor aboard USN craft with his American counterpart providing daily OJT while normal operations were being conducted. As the VNN sailor became sufficiently trained, the USN counterpart was transferred back to the United States. Every crew position was then transferred

sequentially in this manner until final craft transfer was completed with the training and replacement of the craft captain.¹⁶ This process permitted instruction to be conducted on actual equipment during combat operations, enabled ongoing operations to continue uninterrupted, removed the need for training craft to be drawn from operational units, and virtually eliminated the inevitable loss of efficiency and effectiveness of newly transferred units/operations which normally required time to "get up to speed." The September 1969 Monthly Historical Summary clearly shows the minimal operational impact of this process:

The River Patrol Force continued to assert pressure on enemy forces during the month of September [1969], while vigorously pursuing an effective ACTOV (Accelerated Turnover Program) to train and prepare their Vietnamese Navy counterparts to assume increased responsibility in operational matters.¹⁷

The ACTOV program successfully transferred ongoing operations by December 1970, and the Solid Anchor shore base facility by April 1971. Once transferred, each operation was redesignated as one of the Tran Hung Dao series, named for the highly esteemed South Vietnamese Naval hero of the same name. The title of each operation and date of transfer are as follows:

Tran Hung Dao Series: (Vietnamization)

- I - Foul Deck (Feb 69)
- II - Giant Slingshot (May 70)
- III - Sea Float (Jun 69 Initiated Combined)
- IV - Solid Anchor (Apr 71)
- V - Ready Deck (May 70)
- VI - Search Turn (Dec 70)
- VII - Sea Tiger (May 70)
- VIII - 7th ARVN Div on Xang Canal (Aug 1970)
- IX - Barrier Reef (Aug 70)
- X - Breezy Cove (Dec 70)
- XI - Cambodian Invasion (Originated as a Vietnamese Operation)

Border Interdiction Campaign

The border interdiction campaign consisted of the major barrier operations including Search Turn, Foul Deck/Tran Hung Dao (fig. 13), Giant Slingshot (fig. 14), and Barrier Reef (fig. 15) which were designed to impede Viet Cong resupply efforts across the Cambodian border into the Mekong Delta (fig. 16). The supporting operations included: Keel Haul I and II, Double Shift, and Deep Channel I and II.

The Keel Haul ventures were joint operations conducted to maintain an offensive posture along this basically defensive barrier. Allied riverine craft would transit through the section of the Vam Co Tay which constantly met heavy VC resistance, nicknamed "Blood Alley," until the enemy was encountered. Army troops would then be disembarked from the craft, inserted utilizing air mobile assets, and isolate/engage enemy forces from both land and water.

Operation Double Shift involved the rapid concentration of 105 U.S. Navy and Vietnamese Navy boats in response to serious enemy threats to the city of Tay Ninh, which was the capitol of Tay Ninh Province and "headquarters of the militant Cao Dai religious sect."¹⁸

The Deep Channel Operations utilized EOD units with explosives to create a connecting waterway between the Kinh LaGrange, Kinh Bobo, and Kinh Gay canals (fig. 17) providing "a vital interdiction route for naval patrol boats and a timesaving commercial route for the civilian population."¹⁹ This area was known to be the most important of numerous enemy infiltration routes into Saigon from Cambodia. The entire Parrot's Beak region was a major staging and rehabilitation area for Viet Cong and NVA troops. Estimates of the number of enemy in that

region indicated up to 60,000 troops. "Using the Kinh Bobo and related streams, the enemy could move virtually without interference to within ten miles of Saigon."²⁰ Deep Channel operations created a route which was 30 kilometers long, and allowed a 20-minute reaction time to any point along the canal from either of the Navy's advanced tactical support bases (ATSBs) at Tuyen Nhon or Tra Cu (fig. 14).²¹

In establishing the Interdiction Barriers, problems were caused by the adverse terrain and the lack of sufficient ground troop support. Commander Schreadley stated that "falling water levels, steep banks, and inadequate ground support were serious obstacles to overcome."²² In some instances, low water and steep banks combined to place riverine crews in the unfortunate position of having the enemy firing down on them and craft weapon effectiveness seriously degraded. The troop insertion operation of 23 June 1969 is indicative of both the reluctance of Provincial and District Chiefs to provide ground troop support for untested offensive operations so close to the Cambodian border and the degree of improvisation that was occasionally necessary to offset that lack of support. PBR's, with Civilian Irregular Defense Group (CIDG) troops embarked, "inserted the troops about 1/2 mile east of Cai Cai [grid coordinates] (WT 618 000) for a search and destroy mission. Navy personnel led the troops and located and destroyed 12 hand grenade booby traps, five bunkers and one tunnel."²³ Even when troops were assigned, Vietnamese local/unit commanders were still hesitant to take the initiative and conduct operations beyond the direct support range of riverine forces. The June 1969 Monthly Historical Summary laments this

situation, stating that "prior to 1 April [1969] Vietnamese ground troops rarely swept beyond two kilometers from the canal."²⁴

The paradox here was that such caution would inhibit rapid success but at this same time barrier operations generally had to show success and significantly reduce the enemy threat in an area before Vietnamese ground troops would be provided. With the transfer of operations to the Vietnamese Navy, Operation TRAN HUNG DAO, "and the introduction of SEAL operations . . . the employment of ground forces began to show improvement."²⁵ Ironically, the greatest need for ground troop support was in the initial establishment of barrier operations in sharply contested areas. Without this support the direct influence of riverine forces was basically limited to a few kilometers from the waterways. Once land force support was established and integrated, the negative effect of terrain was diminished and Allied interdiction capability dramatically increased. Air support was also important, as can be readily seen in the April 1969 Monthly Historical Summary:

Prompt reaction by fixed wing aircraft and/or helicopters providing air cover coupled with frequent insertion of reaction troops already embarked in the patrol craft and employment of other supporting arms remained the best counter to these attacks.²⁶

Success, then encouraged Vietnamese ground troop support and unit initiative and resulted in more operational success. In fact, when speaking of the success of a specific mission, the November 1968 Monthly Historical Summary noted with satisfaction that "RF/PF troops began ground sweeps at quite a distance from their base camps."²⁷ Despite initial difficulties, Vietnamese ground troop support, in conjunction with air support and SEAL intelligence collection/offensive operations, was critical to Border Interdiction Campaign success.

As barriers were being established, VC/NVA resupply efforts shifted to non-patrolled areas. As a result, "most of [the] action came on operations away from the regular areas."²⁸ Once the barrier system was completed, the VC/NVA began to probe and test new tactics designed to penetrate the barriers. To counter these efforts, barrier assets were massed, shifted, and new facilities established in response to intelligence reports of enemy activity. For example:

CTG 194.3, consisting of two PBR divisions, a Seawolf team, and an LST, was formed and tasked to dedicate 50% of its assets to offshore day and night patrols since intelligence reports indicated seaward infiltration into the shoreline between the "Three Sisters" and the shoreline south of the mouth of the Song Cai Lon. The remaining 50% were available to respond to Province and ARVN requests for support and operated in the Ha Tien-Rach Gia, Tri Ton, Ba The, Vam Ray, and various other adjoining waterways. To reduce travel time to the northern part of the AO, a new ATSB was established at Vien Son 16 miles northwest of Rach Gia at the intersection of the Ha Tien-Rach Gia and Tri Ton Canals.²⁹

A good example of how units and assets were also shifted from the other Task Forces in response to changing enemy tactics and concentrations was:

There were increased intelligence reports that the enemy was enlarging his efforts to infiltrate men, munitions, and supplies across the Rach Giang Tanh into the Tram Forest and across the Vinh Te Canal into the Seven Mountains region. Reacting to the reports, the USS HUNTERDON COUNTY (LST 836) TU 116.3 with PBR River Division 591 (TU116.3) embarked changed operation control on 24 July to CTG 194.4 the Barrier Commander, stationed aboard the YRBM 16 moored near Chau Doc on the Upper Bassac River and became TU 194.4.9 and 194.4.6 respectively. River Division 591 was assigned to carry out patrols on the Tri Ton and Vinh Te Canals, and River Division 515, which was assigned operations in Barrier Reef, augmented the Vinh Te Canal patrols. One TF 117 monitor was assigned to supplement the USN and VNN forces along the Rach Giang Thanh. Allied patrols in the last days of the month [July 1969] appeared to verify the intelligence information as they reported an increase in the number of incidents especially in the corridors along the Vinh Te Canal leading to [Enemy] Base Area 400.³⁰

The entire SEALORDS chain of command and conduct of the overall campaign was designed to maximize flexibility, coordination, and integration of assets. In order to orchestrate efforts of riverine craft and the variety of ground troop units, a high degree of coordination was necessary and achieved well beyond that of previous riverine campaigns. A sense of the close coordination which existed among U.S. and Vietnamese forces can be seen in the variety of reconnaissance operations supported by Navy river craft:

Troop insertions were made of Vietnamese Army, Regional Force, Popular Force, Civilian Irregular Defense Group (CIDG), Provincial Reconnaissance Unit, National Police, Field Force, and Armed Propaganda personnel troops along with U.S. Army 1st Air Cavalry and 25th Infantry Division soldiers at various times throughout the month. During March [1969] river craft participated in nearly 100 operations with these troops ranging from the insertion of small night reconnaissance patrols to area sweeps by battalion size forces.³¹

The defense of Tay Ninh City against a large imminent VC/NVA attack utilizing a "rapid concentration of boats, plus the ability to mobilize the required support instantaneously, demonstrated the flexibility of the riverine forces and the expertise which they had acquired in six months."³²

Since the Border Interdiction Campaign, once established, was basically a defensive operation, to retain the initiative and keep offensive pressure on the enemy, Operations Keel Haul I and II were launched into the Giant Slingshot AO. Two months later, in the Barrier Reef AO, "six PBR's were airlifted to the [Cai Cai] river."³³ Countertactics and technology were also utilized to neutralize enemy initiative. Changes in techniques, routine and intensity were another tool to "keep the enemy off balance." For instance, in order to combat

the enemy's increased infiltration effort in May 1969, "PBR and VNN junk force patrols and ambushes, SEAL, and Duffel Bag sensor missions were intensified."³⁴

Two other items that were distinctive in this campaign were VC mining and enemy activity in the Giant Slingshot AO. Due to the geography of the area, location of Saigon, and penetration of the Parrot's Beak into the Mekong Delta, Giant Slingshot operations consistently made the most frequent enemy contact and met the heaviest opposition. Just as with all other sustained riverine operations, the enemy employed mining tactics, however, "mine sweeping . . . appeared to neutralize the mine threat."³⁵

Results

The Border Interdiction Campaign significantly reduced enemy infiltration into the Mekong Delta. Intelligence reports repeatedly described the difficulty "caused to the enemy by the constantly patrolling units not only in terms of physically preventing his freedom of movement, but also denying him adequate weapons, foodstuffs, and medical supplies."³⁶ Due to the decrease in infiltration of enemy personnel and supplies, the threat of enemy attacks on major population centers was greatly reduced. In addition, the Border Interdiction Campaign was "instrumental in preventing the enemy from mounting a sustained offensive by helping to deny him the necessary manpower and material to do so."³⁷

One object of such a possible offensive would have been Tay Ninh City, the provincial capitol of Tay Ninh Province. Operation Double

Shift thwarted any such attempt and by doing so had strategic implications. As reported in the Historical Summary of July 1969:

It is almost certain that as a result of operations caused by "Double Shift" the enemy was forced to delay any planned assaults from the west and southwest of Tay Ninh. This is especially significant in view of the fact that Tay Ninh had been mentioned as an ideal site for the capital of the newly formed Communist Provisional Revolutionary Government. A victory for the enemy in this area would have had an enormous propaganda effect. It also may have been a logical first step for future attacks on Saigon.³⁸

Enemy frustration and their response to the interdiction barriers is a good indirect demonstration of Allied success. The following indications of the difficulty caused to the enemy by the interdiction barrier were reported in the Historical Summary of October 1969:

There were several instances in which large enemy forces tried to fight their way across the [barrier] while directing mortar fire at the boats in a seldom used tactic. The enemy seem[ed] to prefer attempting to breach the . . . barrier rather than effect the extensive commo-liaison reorganization that would be required if he were forced to make end runs through the coastal waters of northwest Kien Giang Province or down the Bassac/Mekong River Corridor.³⁹

The enemy's regression in tactics to once again conducting daylight crossings also displayed his frustrations in being unable to infiltrate large enough quantities of supplies at night to meet the demand in the Delta. In fact, increased river bank activity and river crossing attempts in the daylight hours suggests that certain areas became "so difficult to cross at night due to the constant pressure of RIVDIV units that the Viet Cong prefer[ed] to attempt crossing during the hours of peak sampan traffic."⁴⁰ Enemy desperation also led him to shift from attempts at covert infiltration to one of aggressive assault:

Faced with heavy losses suffered in border crossing attempts and a backlog of supplies in Cambodia at a time when they are needed in the south for the Winter-Spring Campaign, the enemy has increased his aggressiveness against the interdicting units.⁴¹

The increase in security of the area including open transit of the waterways by the local population and the presence of commerce traffic is a direct indication of success along the barriers. Captain Arthur W. Price, Jr., Commander of Operation Giant Slingshot (TG 194.9), stated in his oral history that "Before Giant Slingshot's inception friendly movement of boats and people on these rivers was nonexistent."⁴² As the campaign continued, the presence of increased local and commerce traffic grew and local economies began to revitalize.

Raid/Assault

Major raid and assault efforts in the SEALORDS campaign consisted of Market Time Raiders, Rung Sat Special Zone (RSSZ) operations, Caesar II, the Cambodian Incursion, and Blue Shark. The objective of these operations was "to stir up the enemy and keep him off balance."⁴³ Market Time Raiders operated coastal patrol craft, consisting primarily of Swift boats, which conducted raids along the III and IV CTZ coastal areas. They also penetrated into rivers and canals off the Gulf of Thailand; South China Sea; and portions of the Go Chien Ham Luong, Soi Rap, and Rung Sat Special Zone. In his oral history, Admiral Zumwalt stated that the Market Time Raider Campaign "was probably the boldest action . . . of all the SEALORDS efforts."⁴⁴

Operations in the RSSZ and adjacent areas were undertaken to attack the enemy in his base camp sanctuaries and included operations Friendship, Platypus, Operation Chuong Duong, and the Wolf Pack series.

All of these operations utilized U.S./Vietnamese Naval forces in combination with Australian, Thai, and Vietnamese ground troops. "Thus a truly international conglomerate of soldiers and sailors launched the combined operation[s]."⁴⁵ Ground forces were key to the immediate striking success achieved. One particular sapper unit (Doan-10) was specifically targeted to stop attacks on merchant shipping on the Long Tau river.

Operation Caesar II isolated a VC controlled area north of Ben Luc between the Vam Co Dong and Route 4, removed and detained all civilians, and conducted continuous area sweeps for eight days.⁴⁶

The Cambodian Incursion operation was conducted to "establish and ensure the security of the Mekong River from the Cambodian border to the capitol of Phnom Penh and to assist in the evacuation of refugees."⁴⁷ Significant U.S. assistance in this "officially" Vietnamese undertaking gave the operation a joint and combined flavor from inception. This joint operation involved RAIDs 70-75, RID 42, eight U.S. PCFs, eight U.S. ASPBs, fifteen VNN PCFs, four detachments of Seawolves, one unit of Black Ponies, RAGs 21 and 33, U.S. RIVDIV 593, RPG 55, a flagship with support vessels, and a VNN refugee lift unit. For political reasons, U.S. Naval Forces were not allowed north of Neak Luong. Despite this restriction, "VNN forces provided ample security for the Mekong River."⁴⁸ These units also provided a blocking force for Vietnamese ground forces invading Cambodia and "naval forces interdicted communist east-to-west supply lines and curtailed enemy traffic on the Mekong itself."⁴⁹

Ground troop support was much better in the Raid/Assault campaign. Ground forces assisting in these operations included Under Water Demolition Teams, Explosive Ordnance Disposal Teams, SEALs, PRU's, and ARVN soldiers. Mobile Support Force (MSF) and Regional Force/Popular Force (RF/PF) troops were also embarked to conduct ground sweeps and provide a reaction force in the event of attack.⁵⁰

Since Raid/Assault operations were offensive in nature, ROE and tactics were significantly modified. To enhance force protection as they moved into known enemy sanctuaries, the ROEs were significantly loosened to allow raiding craft a more offensive posture:

When these raiders sailed along unpopulated sections of rivers, they fired at any perceived enemy threat, hoping to prematurely trigger any ambush that might have awaited them. If they received fire they were permitted and prepared to respond. In this manner, the SEALORDS units were able to maintain the initiative in potential ambush situations, engaging the enemy under conditions more favorable to the patrol units. As a result, they accounted for large amounts of enemy sampans, structures, and bunkers destroyed during their transits.⁵¹

New tactics were also developed to protect the force and ensure success. Complying with CTF 115 Message 310603Z December 1968 to TF 115, concerning evaluation of tactics, predictable patterns of patrols and river incursions were avoided in order to keep the enemy "guessing, confused and off balance."⁵²

While less restrictive ROEs helped protect Allied forces, there was some negative impact on pacification. This effect was minimized by thoroughly planning operations to be conducted in hotly contested enemy sanctuaries and avoiding uninvolved populated areas. Intelligence was critical in ensuring that base camps were properly identified and located, and that firefight effects could be localized. Some areas that

strongly supported the VC war effort, and included some civilian habitation, were targeted. These cases, as enunciated by Commander Schreadley, were a source of concern:

These Swift boat raids into areas long controlled by the Viet Cong, though daring, were also troubling. Some, including Salzer, admitted to "squeamishness" about attacking "Viet Cong civilians." Was it really necessary to destroy the homes and the livelihood of river people in order to "save" them? There were those who did not think so, but few spoke up until long after.⁵³

Results

The success of Rung Sat Special Zone (RSSZ) operations was undeniable due to the fact that enemy base sanctuaries were eradicated and attacks on commercial shipping which transited the area was virtually eliminated. Furthermore, the status of the RSSZ Vietnamese Commander was dramatically elevated:

From an operation which at one time was thought to have been assigned to the Vietnamese Navy because no Vietnamese Army officer in his right mind could be found to accept it, the Rung Sat Special Zone by early 1970 had become a model for what could be made of a seemingly hopeless situation, given leadership, singleness of purpose, and a spark of imagination.⁵⁴

The final indicators of success were the lessening of VC resistance to the Allied presence in these traditional enemy strongholds, and pacification. Decreased enemy resistance was clearly seen in the official Navy operational reports. Specifically, the February 1969 Monthly Historical Summary stated that there was a marked "decrease in hostile fire incidents and the conduct of almost routine patrols on rivers which the PCF's had to fight their way into in prior months."⁵⁵

The visible improvement in the security situation, once again, was a very good indicator of campaign success. Application of constant

offensive pressure on the enemy not only caused him to consume precious supplies, but it also removed his ability to take the initiative. In fact, constant harassment of the enemy, denying him a secure base area, and never surrendering the initiative "completely changed the complexion of the war . . . pacification programs took hold, abandoned hamlets were resettled, and the economy improved."⁵⁶

Ca Mau

The assault, patrol and Allied base establishment operations of Silver Mace I and II, Sea Float, Breezy Cove, and Solid Anchor were designed to counter VC control of this remote southwest corner of South Vietnam. On the western part of the Cua Lon river in the An Xuyen Province (fig. 2), the VC had erected twelve barricades in an attempt to stop Allied transit of the river, but Operation Silver Mace destroyed the obstacles in four days. The mission of the two-week Silver Mace II operation was "to seek and destroy all enemy units and their logistic support in the AO(area of operations)."⁵⁷ Operation Sea Float placed a large mobile pontoon base in the middle of the Cua Lon River, which was made difficult by "heavy Viet Cong opposition, strong river currents, and the distance to logistic support facilities."⁵⁸ Operation Solid Anchor established a shore base farther up river after "communist 'tax collectors' were routed and a concentrated psychological program was launched."⁵⁹ Both operations were launched as a combined U.S. Navy and Vietnamese Navy venture. Operation Breezy Cove was initiated to "implement USN Game Warden type PBR Operations on the Song Ong Doc in An Xuyen Province in order to prevent enemy infiltration, movement, and resupply along the inland waterways in the Song Ong Doc area in order to

enhance the government of Vietnam's pacification program."⁶⁰ This operation further threatened the communist "rear" area as Allied forces set up patrols on the Ong Doc, a river bordering the dense and isolated U Minh area.⁶¹

The enemy response to the Allied attempt to establish a permanent presence in this historically VC held territory was one of stiff resistance. During the first month, four out of every five patrols were ambushed by enemy forces. This highlighted the importance the VC placed on retaining control of the Ca Mau Peninsula.⁶² Viet Cong reaction to this unwanted presence in his rear also took the form of "increased mining and ambush of Swiftboat patrols, and a vigorous psychological warfare operation of his own."⁶³

The combined nature of operations and priority placed on it by Admiral Zumwalt, provided a wide variety of Navy and Vietnamese support. Participating forces included 29 river assault craft of River Assault Squadron (RAS) 13, three battalions of Vietnamese Marines (about 2400 troops), 25 Vietnamese River Assault Group boats, 13 PCF's of TG 194.5, and various gunfire and logistical support units, such as USS Carronade (IFS-1), Crockett (PG-88), Mercer (ABF-39), Westchester County (LST-1169), Hampshire County (LST-819), Satyr (ARL-23), Krishna (ARL-38), Navy Seawolf helicopters, SEAL and UDT/EOD teams, a substantial force of Vietnamese supply vessels, Market Time raiders, Mobile Strike Force and RF/PF troops, Coastal Group junks, tactical strike aircraft supplied as needed by the U.S. Army, Navy, or Air Force, and helicopter gunships. A U.S. Army surgical team and medevac helo were also aboard USS Mercer to render medical assistance.⁶⁴

Results

The establishment of this distant Allied permanent base which the Army had dismissed as insupportable, "denied [the enemy] a safe haven even in this remote corner of the delta."⁶⁵ It also produced almost immediate positive effect in terms of security. As a result, river traffic, resettlement of the area, and commerce dramatically increased. With the eviction of Viet Cong "tax collectors" from the principle water routes, civilian traffic on the rivers noticeably increased. During the first five days, 24-29 July 1969, there was an average of 102 sampans per day. By the middle of August there were 159 per day and the average size was larger with heavier cargoes. There was also a large volume of people returning to the area and by September, population figures were doubling every 25 days.⁶⁶ When the base became operational, "thousands of visitors flocked to the Navy complex. Commercial woodcutting and fishing revived. Within a few months of Sea Float's establishment more than 9,000 people had resettled in its vicinity."⁶⁷ The city of Nam Can, which had previously lay in ruins, blossomed to life:

The economy of the Nam Can grew dramatically, the population mushroomed, and the pace of the pacification effort quickened to keep in step. . . . small stores appeared, and a restaurant opened its doors for business. New fishtraps were hammered into the river beds and wired in place. Broad areas of the banks were soon taken over by the drying catch. Seemingly from nowhere, skilled masons appeared and began the painstaking reconstruction of the area's once ubiquitous beehive of charcoal kilns. In December the first baby, a little girl, was born on Sea Float to the obvious delight of every sailor on board.⁶⁸

An interesting and telling testimony as to the Allied success in the Ca Mau came in November 1969:

A junk master on the Song Ong Doc volunteered the following information: he had not travelled from Ca Mau to Song Ong Doc (city) for eleven years due to VC tax extortion. He has now begun the trips again because extortion has ceased and the VC have left the river area.⁶⁹

Waterway Security

The Waterway Security category encompasses Ready Deck, Mang Thit-Nicolai, Mobile Water Traffic Checkpoint, and Sea Tiger operations which were conducted in order to open vital trans-delta waterways for commercial use, clear commerce routes to Saigon, and reinforce Task Force Clearwater operations near the DMZ in I CTZ.

Task Force Clearwater was bolstered by Operation Sea Tiger in which "Task Force 115 Swift boats, River Division 543 PBRs, Vietnamese Coastal Group 14 junks, and River Assault Group 32 units battled to secure the Cua Dai and Hoi An rivers in Quang Nam Province."⁷⁰

Ready Deck was a combined USN/VNN operation on the upper Saigon River "assigned to interdict enemy lines of communication."⁷¹

The Mobile Water Traffic Checkpoint was a new concept wherein ground troops were placed on adjacent banks, U.S./VNN craft stopped all passing water commerce, and National Maritime Police searched the water craft. An interesting benefit came in the area of intelligence collection by subtle questioning of water craft owners while they waited.

Operation Mang Thit-Nicolai was conducted to promote resettlement along the Song Mang Thit-Nicolai River/Canal and to promote the government image, since this commerce route forms the central portion of the North-South Waterway System between the rice growing heart of the Delta and the Saigon Market. Tactics included Escort

patrols, night water borne guard posts either with PBR's or PBR's in conjunction with ground troops, daylight bank sweeps utilizing ARVN and Province Forces, an active Psyops program, routine day and night patrols, search and destroy missions, ground sweeps, and UDT-12 bunker blowing operations.⁷²

Results

Increased security, river commerce, and enemy logistical difficulty are once again good indicators of operational success. In November 1968, critical river commerce routes were restored. Specifically, the Cho Gao canal, which connected the Mekong river near My Tho with the Vam Co river, was cleared of VC barricades which opened this vital route for Delta rice trade and removed a lucrative source of taxation for the VC. The Can Tho crossing "which was the main cross-delta route for rice convoys"⁷³ to Saigon was opened by placing a PBR blockade around the VC controlled islands in the area. Statistics from the September 1969 Monthly Historical Summary indicate that:

Traffic on the Mang Thit/Nicolai Canal doubled from approximately 1,000 units to 2,000 units per month. There also was a noticeable pacification improvement as evidenced by numerous hootches being built in previously uninhabited areas, the enthusiastic response of people along the canal bank to the PBR presence, and the increased response to medical aid missions.⁷⁴

Intelligence information and captured documents were particularly gratifying in that they clearly indicated the extreme difficulty that the enemy was having in moving "food, men, and supplies on the upper Saigon River. To counteract the US/GVN operations, the enemy have been forced to try and locate new and safer crossing points."⁷⁵

Problems

The major problems that adversely affected the SEALORDS campaign as a whole included tour length, ground troop support, interservice rivalry, basing, and ACTOV. As discussed previously, the ACTOV time line originally set by Admiral Zumwalt was not met. Most of the problems encountered in the field, during implementation of the ACTOV program, were in teaching the use and repair of machinery or weaponry. The negative impact was minimized through the innovative techniques and methods mentioned earlier; however, these problems did cause the turnover time line to slide.

The basing system was dramatically improved over that encountered in previous riverine campaigns, by the use of forward bases called ATSBs. The remote locations of some ATSBs, however, placed a heavy burden on the logistics system to provide adequate support. In some cases, this support was inadequate and directly impacted operations. In particular, Song Ong Doc and Old Nam Can ATSBs were unable to keep up with maintenance problems of the river craft. As a result, Breezy Cove assets were insufficient to counter the surge in enemy attacks in June and July 1970.⁷⁶

As succinctly declared by one author, lack of sufficient ground troops "would plague Sea Lords operations from beginning to end."⁷⁷ The main reasons for this difficulty in securing sufficient ground troop support came from the corruption and opportunism that pervaded the command structure throughout Vietnam:

The fractured nature of the ground command structure in IV Corps, where most of the troops were Vietnamese, posed special problems. Though in theory centrally controlled, in practice, division commanders, province chiefs, and even district chiefs exercised a

surprising degree of autonomy in the employment of the forces assigned to them. The limits of geographic areas of responsibility were rigidly observed and as these areas were often divided one from the other by major rivers, the rivers themselves, of primary concern to the Navy, were often a "no man's land" insofar as the ground forces were concerned.⁷⁸

Many historians argue that the one year tour length, instituted by General Westmoreland, handicapped efforts across the entire theater by draining off expertise much too quickly, especially when considering the time necessary to train new arrivals for combat operations. An article written in 1970, which described daily operations in the Giant Slingshot AO, indicated that, "so rapid was the turnover of personnel, primarily because of the one-year tour, that it was not at all uncommon to have two or more green hands in the boats."⁷⁹ The sizeable negative impact on combat capability becomes obvious when considering how each function of the small crew of a riverine craft is critical to effectiveness and survivability.

The final, and most regretful, difficulty encountered in the SEALORDS campaign was the extent of interservice rivalry that manifested itself in Black Pony OV-10 close air support operations. Political parochialism surfaced with the Air Force over FAC control of the Black Ponies and with the Navy over support of Army units.

With the arrival of the Black Pony squadron in theater, Navy planners were unfamiliar with the capabilities of this new platform. As a result, the mission assignment was vague and basically allowed the squadron to provide support to whomever requested their assistance. As it turned out, Army units began calling for Black Pony services much more than Navy units. However, "As the squadron became more successful,

the Navy chain of command . . . became concerned that the bulk of our firing was done to support Army units . . . it was quickly changed."⁸⁰

On the other side of the coin, Air Force parochialism directly affected platform capability and virtually inhibited timely weapons employment in some cases. In outfitting the OV-10 with weapons, the necessity to retain Navy control of the asset severely restricted weapons type selection:

Our ordnance had to consist exclusively of forward firing weapons to keep us from coming under Air Force tactical control. Their cumbersome control system sometimes took hours to grant clearance to fire on targets that needed to be hit immediately.⁸¹

The most telling account of this phenomenon of counter-productive DOD politics directly affecting mission accomplishment was retold by a Black Pony pilot:

We shared a good working relationship with an Air Force tactical air support squadron (TASS) . . . they were often able to give us good targets while they waited for their tactical aircraft. This cooperation ended when a TASS FAC [forward air controller] told a very tardy flight of F-100s, "Jettison your bombs here. The Navy has already hit my target." From somewhere on high came a directive that Air Force FACs would no longer work Navy air. About a month later, as a TASS FAC tried to steer my flight of OV-10s into a night action involving U.S. advisors in an overrun South Vietnamese Army outpost, an authoritative voice over the radio forbade the FAC's involvement. Ever the professional, he remained on station "inadvertently jettisoning" flares until we could arrive overhead. That such a "my war, my glory" attitude could get in the way of supporting those poor SOBs on the ground was deeply disillusioning. In time, this policy was rescinded.⁸²

Enemy

The unique efforts and tactics developed by the enemy during the SEALORDS campaign focused mainly on barrier penetration operations; but also included mining, a new offensive, and countering Allied technological advantages. The Combined Intelligence Center, Vietnam,

report entitled "VC Tactical Use of Inland Waterways in South Vietnam" indicated that infiltration materials were of four general categories: arms and ammunition, foodstuffs, medical supplies and raw materials, and to a lesser extent--men. They carried all materials or utilized inconspicuous water craft such as sampans.⁸³ Enemy forces located in the Border Interdiction areas were "dedicated almost exclusively to the mission of pushing men and material through these barriers. There [was] a strong tendency on their part to avoid contact with barrier forces whenever this tactic show[ed] good promise of allowing them to accomplish their primary mission of infiltration."⁸⁴

The enemy initially relied on daily water traffic to mask their movements during the day. As SEALORDS daytime patrols became more effective, it became apparent to both sides that the best time to infiltrate was under the cover of darkness. Usually the boats on nighttime WBGPs were taken under fire only when the enemy wanted them to break their guard posts or they were unaware the friendly forces were in the area. The Allied forces benefitted from the infiltrating enemy's lack of familiarity with the area, which forced them to rely upon local guides.⁸⁵ The success of Allied night WBGp operations eventually forced the enemy back into daytime direct assault, diversion or peak traffic covert crossing tactics.

The enemy was afforded the unique advantage of having a sanctuary base area very near to its barrier penetration operations. As a result, he could afford to choose his time and place of infiltration somewhat judiciously and if detected he could withdraw to the safety of his sanctuary for a future infiltration attempt. This effectively

lowered the risk level and increased his ultimate chance of successful barrier penetration.⁸⁶ When far beyond the Cambodian sanctuary, such as along Barrier Reef or Search Turn, the enemy was forced into the open in the flat country between the border and their ultimate destination, and consequently encountered much more difficulty in disengaging and withdrawal when detected. With this higher level of risk, he had to ensure that his infiltrating units, once underway, made it through the barrier.⁸⁷ The enemy developed elaborate and sophisticated counter tactics to penetrate the barriers. According to cross-verified PW and Hoi Chanh [defectors] interrogations:

The infiltrating unit will usually approach to within 600 to 800 meters of the boats and then send out scouts to locate the WBGP positions. The enemy usually likes to cross at one of several predetermined points. If the way is blocked by friendly watercraft and crossing immediately is not of crucial importance, the infiltrating unit will usually withdraw and attempt a crossing at a later more favorable time. If it is imperative that they cross immediately they will often launch a diversionary attack against the boats in an attempt to force them to break WBGP. If, however, the scouts ascertain that the way is clear they will signal the waiting unit by lights. The unit then comes forward, splitting into smaller and smaller groups as it approaches the water. If at any time after the foremost elements enter the water they are fired upon by Allied forces, the remaining elements will withdraw and those already in the water will attempt to continue across.⁸⁸

The other advantage that the enemy enjoyed, in addition to terrain, was that the Border Interdiction Campaign was basically a defensive operation, which yielded the initiative to "Charlie." This enabled the VC/NVA infiltration units to apply well coordinated multi-axis actions against the barriers. For example:

The Viet Cong usually cover a river crossing attempt with a squad or more armed with recoilless rifles, rocket-propelled grenades (B-40, B-41), and automatic weapons such as the AK-47. If he is caught, or thinks he is, "Charlie's" cover troops go into action, and the river bank erupts with fire. "Charlie" fights back fiercely. He may set an ambush, bringing concentrated fire against a passing patrol as a

diversion to cover a major troop or logistic movement elsewhere, or to avoid some other disruption of his plans.⁸⁹

An analysis of the interdiction barrier, conducted by the Navy Operations Analysis Branch, indicated that a small group crossing exactly midway between two WBGPs at night appears to statistically "have an excellent chance of success. However, for enemy personnel attempting to carry across heavy and/or bulky ordnance in a sampan, for example, the chance of successfully crossing after detection is small."⁹⁰ In practice, the enemy's ability to cross exactly midway between WBGPs with any significant logistics train was limited. As a result, much smaller piecemeal operations were undertaken by the enemy and delays continued to mount.

The enemy was able to launch a limited Post-TET Enemy Offensive on 23 February 1969, but incidents in the SEALORDS AO were minor and/or anticipated. This offensive did cover a wide area and involved "more than 100 cities, towns, including Saigon, and military installations throughout South Vietnam."⁹¹ However, the lack of potency of this offensive seemed to indicate that it was aimed more at American media than Allied forces. Enemy attacks included coordinated rocket and mortar fire, and some ground probes. As expected, attacks in the Delta were focused in the Giant Slingshot area, III Corps, and Dong Tam Support Base, IV CTZ. Navy units in these areas, fortunately, were "already poised for such attacks as a result of published intelligence by CTG 194.9."⁹²

The enemy very astutely tailored operations to minimize Allied technological advantages. The VC/NVA infiltrators capitalized on every environmental advantage that was available. Not surprisingly, the

majority of enemy crossing attempts occurred "during periods of subdued moonlight, so the range of the NOD's [Night Observation Devices] used [was] restricted."⁹³ Despite Allied technological advantages, the VC made good use of existing equipment in combination with terrain and initiative advantages. For instance, "he [could] power a sampan to do 30 knots and dart out of a creek on one side of the river to a creek on the other side."⁹⁴ This adaptability again narrowed his probability of detection by limiting his exposure time.

As in previous riverine campaigns, the enemy used mine warfare extensively to counter Allied efforts. Fortunately, because most mines cannot be set to discriminate between friend and foe, the Viet Cong mine campaign in the Delta consisted of command detonated mines and "the use of swimmers, carrying limpet mines."⁹⁵ However, for use along waterways that the VC had no intention of transiting, the enemy developed a crude, yet effective, mine that floats just beneath the surface making it very difficult to see in the muddy water. This mine, made of a simple woven straw basket of explosive slung from the inner tube of a tire, took a toll of both Clearwater and NSA logistics craft.⁹⁶

Results

To the credit of the ingenuity and relentlessness of this guerilla foe, intelligence reports indicated that in the first year the enemy attempted to infiltrate at least five new regiments into the delta and significant elements of these units had successfully reached the corps interior. However, "their subsequent operations [were] hampered by the lack of supplies."⁹⁷

Tactics Evolution

Throughout the SEALORDS campaign, new tactics were created, refined, altered, and enemy tactics were even adapted for use against him. The two most prevalent categories of tactics development were in Raid/Assault and Barrier operations. In the conduct of Raid/Assault operations, innovation in tactics employment was encouraged at all levels by CTF 115 Message 310603Z December 1968 to TF 115, concerning evaluation of tactics, declaring that predictable patterns of patrols and river incursions were avoided in order to keep the enemy "guessing, confused and off balance."⁹⁸ Many innovative tactics were tested, but the most successful of these were the use of a lead craft decoy and "Leap Frogging." Market Time Raiders developed tactics including a drifting waterborne guardpost and the utilization of the lead PCF of three or more PCF's as a decoy:

When transiting the river, the lead PCF proceeds out ahead at maximum speed steering a zig zag course. The remaining boats stay in a column formation at a speed approximately 500 RPM's less than the lead boat. Upon reaching a distance of approximately 2,000 yards ahead of the others, the lead PCF returns and then commences his run again. The rationale is to lure the enemy into thinking only one "Swift" boat is on patrol. If shot at, all PCF's converge at a point on the opposite bank and saturate the area with 81mm mortar fire.⁹⁹

Sea Float PCFs also developed and implemented a new tactic called "Leap Frogging" in February 1970 to neutralize ambush of routine convoys. A PCF would move ahead to maximum visual range of the convoy, then moor and fire on likely enemy positions forward of the formation. As the convoy reached the PCF position, the craft would rejoin the riverine armada and another PCF would repeat the process.¹⁰⁰ These tactics

produced excellent results in providing better security in hostile areas, deceiving the enemy, and maintaining unpredictability.

Borne of the necessity in implementing a defensive barrier which automatically yields the initiative to the enemy, more extensive and elaborate tactical development was undertaken in the Border Interdiction campaign. The easiest and most immediately productive tactical changes were in the use of new technology devices and the adaptation of enemy tactics. On the technology side, "it was found that night patrols using night observation devices gave units an advantage over the enemy in ambush situations."¹⁰¹ In fact, most crews found that visual detection ranges were moved out to 500 meters and "a former commander of BARRIER REEF indicated that in his experience about half of the crossings detected were detected by personnel using the NOD."¹⁰² In the adaptation of enemy tactics, commanders were able to turn the tables on the enemy and employ mining tactics in secluded waterways, by "the planting of mines along enemy infiltration routes and in likely enemy ambush positions on the river bank."¹⁰³ The enemy's favorite tactic of ambush was also turned against him when a new combined Army-Navy operation known as BUSHWACK I, utilized elements of Echo Company, 5/60 Infantry Battalion of the U.S. 9th Infantry Division to "embark in PBRs and provide flank security on the shore adjacent to waterborne ambushes set by the PBRs."¹⁰⁴

For approximately the first ten months of SEALORDS operations primary reliance was placed on the following two operational tactics: Day and Night Patrol, and Night Ambush which was often referred to as Water Borne Guard Post (WBGp). WBGp was a tactic developed during

SEALORDS where a craft would anchor concealed in areas of known previous enemy activity or in areas intelligence indicated as likely crossing points. Troops and/or sensors were used in a shore based defense/warning perimeter around boats. WBGPs supplanted the night patrol because intelligence indicated that the enemy was quite successful at waiting until the boat passed and then cross, night cruise/drift patrol was extremely vulnerable to ambush, and initially poor friendly COMSEC. Enemy ambushes of friendly night patrols were frequent and often devastating.¹⁰⁵ The WBGPs advantages were not only in detection and security, but in the ability to prosecute the enemy as well, "they could use their speed and associated helicopter-borne troops to pursue him. The waterborne posts radically changed the nature of river warfare."¹⁰⁶

In an effort to further solidify the interdiction barrier and because seasonal rain inundated large areas compounding interdiction problems, a new tactic was developed:

Sampans were utilized by friendly troops to extend the WBGPs front and thus challenge the enemy at his own game. Under the present rules a squad size, three sampan, independent WBGPs is positioned 300 meters from the PBR's thus permitting a much wider dispersion of [larger] waterborne interdiction forces. At the end of the month, conventional WBGPs tactics were further altered by the use of single boat WBGPs throughout the Tran Hung Dao/Barrier Reef TAOR. PCF's, VNN Junks, PBR's, and RAC were assigned geographical sectors in which they changed station randomly. These assigned craft were complemented by troops, sampans, air boats, and Kenner Ski Barges in order to achieve maximum probability of detection and countering enemy infiltration.¹⁰⁷

Further refinement of barrier tactics on the macro level resulted in a line barrier concept. Beginning October/November 1969, forces on Tran Hung Dao I and Barrier Reef instituted a line barrier concept. Boats were stationed in night-long WBGPs positions

approximately 1 to 1.5 km along the entire barrier length. The WBGP positions were augmented to some extent by sensor fields and land-based outposts manned by troops, especially during periods when portions of the AOs were inaccessible due to low water levels. A short-duration (dark until 0200) line-segment (only likely crossing site areas) barrier concept was instituted in the Giant Slingshot AO.¹⁰⁸ Use of the line-barrier concept "significantly increased contact with the enemy,"¹⁰⁹ and thereby indicated increased effectiveness in interdicting enemy infiltration.

The shifting of assets in response to intelligence reports was a tactic often used at the operational level with good results. A case in point was that in March 1970, "COMNAVFORV assimilated enough data to know that . . . [the VC/NVA] had begun to use heavy population areas for infiltration . . . to shield his movements and to get larger numbers of men into an area."¹¹⁰ The SEALORDS Commander directed that WBGPs be placed near large population centers and that a reconnaissance of the area be done before establishing the WBGP. Asset shifts within each operation and even across Task Forces was common in the SEALORDS campaign and undoubtedly enabled smaller forces to provide the mass of much larger operations.

The adaptation of successful tactics from other AOs, including some ground force methods, and employment of multiple tactics simultaneously provided excellent results. Although often requiring constant shifting due to temporary success, the simultaneous employment of a combination of tactics, such as "escort patrols, night water borne guard posts, and daylight bank sweeps utilizing ARVN and Province

Forces"¹¹¹ was effective. A surprising number of established tactics from other AOs were also incorporated, which indicated a great degree of coordination at the highest levels. For instance, "night sniper missions were carried on with good effect,"¹¹² but one of the most audacious and interesting adaptations of assets and tactics from other AOs involved the airborne insertion of riverine craft into inaccessible areas, which caught the enemy totally off guard. On two separate occasions Army Sky Crane helicopters were used in this manner. "In May 1969, six PBRs were sky-hooked to the upper Saigon River, and in June six more were lifted to the supposedly inaccessible Cai Cai Canal. Both operations achieved tactical surprise."¹¹³

Technique Evolution

Changes in techniques were most prevalent in the areas of countermining, deployment, and integration of assets. In response to Viet Cong prolific use of mine warfare, new assets were quickly integrated and techniques developed to minimize the threat. Just as in previous riverine campaigns, every asset was considered and tested for counter-mining capability. In fact, in reaction to local intelligence, PBR river divisions "successfully conducted mine counter measure operations . . . utilizing MSD's (minesweeper drones) thus demonstrating that the MSD can be effectively controlled from a PBR on a winding river."¹¹⁴ The ASPB's combination of armor and speed gave it a distinct advantage in minesweeping operations along the narrow canals of the interdiction barrier. As a consequence, "By 1969, ASPBs were used primarily as minesweepers in the Riverine Force, even though they had been conceived, in fact, as floating tanks."¹¹⁵ However, on the

Barrier Reef operation, employment of MSDs replaced ASPBs which were initially used for minesweeping.¹¹⁶ Quite often the manufacture of the simplest protective devices or simply a change in technique itself thwarts enemy mining attempts. A good example of this was the mining attempt against USS Nueces that was believed to "have been thwarted by minesweeping activity of the mobile riverine base defense patrol or by the anti-mine protective sleeve which is run up and down MRB anchor chains at 30 minute intervals."¹¹⁷

The ability to deploy and reassignment of assets, as discussed earlier, gives great advantages in countering enemy concentrations. On many occasions, in reacting to shifting enemy pressures and probes, naval assets were relocated rapidly from one area of operations to another.¹¹⁸

The integration of assets was another change that dramatically increased SEALORDS effectiveness. "Results obtained from both interdiction and river incursion operations showed improvement with increased employment of ground forces in combined and joint operations with naval forces."¹¹⁹ As always, the total integration of CAS was a key to success in that:

His vulnerability to devastating attack from friendly air assets has the effect of preventing him from concentrating his forces in large units and makes him a somewhat less formidable opponent to barrier watercraft assets.¹²⁰

Another, more obscure but effective, example was the integration of Kenner Ski Barges into both raid and barrier operations. The 22-foot Kenner Ski Barge was a beamy, flat bottomed, twin outboard "skimmer" from the U.S. recreational boat market which was previously assigned to USN advisory staffs. They had considerably more room, maneuverability,

and speed (up to 40 miles per hour) than the 13-foot Boston Whaler which permitted the Coastal Group to mount probes and surveillance operations in the more hostile regions of their areas of responsibility. It permitted board and search activities to be conducted in shallow water where WPBs, PCFs, and VNN junks alike were barred by their draft. This was accomplished by using the Ski Barges to pursue and apprehend junks or sampans in shallow water and then herd them out to the anchored WPB.¹²¹ Perhaps the most prominent instance of total asset integration was the Mobile Advance Tactical Support Base (MATSB), which was placed in the Cua Lon River during operation Sea Float. It was a huge football field sized floating structure constructed from an array of Ammi pontoon barges, incorporating the lessons learned from ATSB use in infiltration barrier operations:

The roofs of huts were strengthened for defense against mortar attack, and the sides were heavily sand-bagged to afford protection from small-arms fire. Numerous automatic weapons and mortars were emplaced, though the primary defense . . . was considered to be the mobile firepower provided by the naval craft and the helicopter fire teams that would be supported there.¹²²

Terrain and technology were also integrated in that the swift current provided excellent anti-swimmer defense and ashore sensors provided early warning.

Technology Evolution

Technology evolution can be easily divided into two categories: the acquisition of new technology and the adaptation of existing technology in new ways. A multitude of new devices and platforms were tested for use in Vietnam. The most significant of these were detecting devices, Mobile Base II, and the OV-10 Bronco.

Detection devices that achieved good results and were employed in the field were a mine hunting sonar, called Shadowgraph, the Duval Detector for detection of false bottoms in sampans, the contraband detector which used radar to search river craft, electronic proximity sensors used for early warning, and Night Observation Devices (NOD) used to increase night visual detection ranges. NODs quickly became "one of the most useful pieces of equipment available to watercraft personnel standing night WBGp on interdiction barriers."¹²³ Electronic sensors were tested in nonpatrol areas during operation Duffle Bag, where artillery or air strikes could be called in on detected enemy movement. Discrimination between real and false indications was refined during operation John Silver and time for verification was reduced to one to three minutes. Eighty eight percent of the activations was verified and fired upon within three minutes, which proved the value of the system in June 1969. Thereafter, the Navy liberally employed sensors throughout the Delta.

Mobile Base II was a sophisticated four-ammi complex specially constructed in the United States with "the latest in afloat habitability features and extensive boat repair capabilities."¹²⁴ Its employment dramatically improved habitability and maintenance capability of local units.

The OV-10 Bronco was acquired by the Navy to fill the gap between helicopter gunship accuracy and jet aircraft speed and payload. Jets deliver much more ordnance "in a short period but the accuracy of those strikes was questionable. The gunship [helicopter] provided good close air support but its relatively slow speed hindered its ability to

react quickly."¹²⁵ The OV-10 provided the best of both platforms. With a much greater payload than a gunship, the Bronco "normal reaction time from alert to airborne was six to eight minutes in daytime and 10-15 minutes at night."¹²⁶ The diversity of ordnance also provided advantages, however, "the Zuni [rocket] quickly became the weapon of choice. It was accurate and could be fused for bunkers (base-detonating fuses) or personnel (proximity fuses)."¹²⁷ As stated by an OV-10 pilot serving in the Black Pony squadron:

VAL-4 was the only . . . squadron in Vietnam to use the [OV-10] Bronco in an attack role. Our mission was important: to provide close air support for U.S. and South Vietnamese forces in IV Corps and the southern half of III Corps.¹²⁸

The adaptation of existing technology involved the use of defoliants, further ATC and monitor modification, and creation of a "baby dragon." Despite defoliants being used in previous campaigns and becoming controversial, they were nonetheless used much more extensively in SEALORDS operations and achieved a very good effect. The winding dense foliage and narrow waterways of the Northern Delta riverine environment gave great advantages to guerilla ambushers, and barrier casualties initially soared to 6 percent. Admiral Zumwalt stated in an interview on 17 April 1992 that this "meant that the average young man had about a 70 percent chance of being killed or wounded during his year's tour."¹²⁹ The defoliant was used to clear vegetation up to 1000 yards back from the banks and Allied casualties dropped to less than one percent per month.

A modified ATC equipped with two 3,000 pounds per square inch pressure pumps, was introduced:

This "Douche boat's" powerful "main armament" could demolish VC defensive positions along river and canal banks, up to and including cement bunkers, whose walls this boat's high pressure water jets could cause to disintegrate. The douche boat also performed an originally unanticipated support function: its water jets easily gouged out wet docks to expedite on-the-scene repairs for damaged river craft.¹³⁰

The 105 millimeter howitzer was also mounted on a monitor, tested in May and began operations in June 1969.¹³¹

Perhaps the most interesting craft modification was on one of the "special ops" 17-foot 85-horse power outboard Boston Whalers, appropriately nicknamed "baby dragon," which had the forward twin mount replaced in the spring of 1970 with an aircraft type "mini-gun" that was "borrowed" from the Air Force.¹³² These modifications gave added capability to the riverine fleet and flexibility to operational commanders.

Results

The December 1968 Monthly Historical Summary makes the correct assessment that, "working with both U.S. and Vietnamese ground units, the combined efforts of the three Navy task forces made significant progress in the interdiction, pacification, and harassment campaigns."¹³³ However, a more tangible and measurable means of determining success must be utilized. The concrete indicators of success or failure can be divided into two categories: direct and indirect. Some very good direct indicators are enemy targeting of Allied operations; VC/NVA logistics difficulties; VC deprivation; enemy defectors; the ability to isolate the battlefield; and numerical indicators such as body count, captured materials, and number of firefights encountered. The best indirect indicator is security.

A direct indicator, that some can argue is linked somewhat with security as at least a facilitator, is the number of enemy defectors. Since the SEALORDS campaign had three principle parts, border interdiction, security, and harassment; enemy defections are only realistic expectations in one of the three efforts--security. The series of operations conducted in the Ca Mau Peninsula were the largest Allied security effort of the SEALORDS campaign, so results from that area provide a good representation. Although no information was available to pinpoint exactly which of the many ongoing Allied security programs was responsible for any given defector, SEA LORDS operations in the Ca Mau Peninsula area were given partial credit for the 85 percent increase in VC defectors to the Nam Can district capital.¹³⁴

A more directly measurable indicator of success is the volume of enemy killed in action, material captured, and firefights encountered. During the first year alone, Allied forces seized or destroyed over 527 tons of enemy weapons, ammunition, and supplies; engaged in 1,206 firefights; killed 2,248 Viet Cong guerillas; yet only suffered 186 total casualties.¹³⁵ It is important to note that Allied infiltration interdiction efforts are "measurable in terms of men and supplies captured or destroyed, but incalculable in respect to what was deterred from ever being sent."¹³⁶ The suspected inflation of body count figures during the Vietnam war was initially a concern for this study, but with the de-emphasis of this measure of success by Admiral Zumwalt, confidence in the statistics listed above is high. In fact, "because our boat crews [were] not able to leave their boats to search for enemy dead, the figures given [above] are undoubtedly low."¹³⁷

The shift in enemy targeting priority is another excellent indication of the impact of Allied operations. The enemy reorientation of water mining efforts is a good example:

In connection with targeting against the boats, in April 1970 COMNAVFORV Combat Intelligence Branch's appraisal was that the enemy had shifted his emphasis in watermining attacks from major rivers, bridges, and civilian craft and was concentrating on Naval Craft on interdiction barriers.¹³⁸

The vacillation of enemy tactics and frustration of his efforts, as previously discussed in the "Enemy" section, also indicates the high degree of effectiveness.

There were numerous accounts indicating that "extremely large quantities of arms, munitions, and supplies were uncovered in caches buried along the river banks, proving beyond any doubt that vital enemy infiltration lines were being interdicted."¹³⁹ These caches indeed indicate that infiltration was being interdicted, but the degree of interdiction must be ascertained. An analysis of interdiction barrier operations and effectiveness on SEALORDS Operations Foul Deck/Tran Hung Dao, Barrier Reef and Giant Slingshot conducted in July 1970 by the Navy Electronics Laboratory Center, San Diego, for the Operations Analysis Branch of COMNAVFORV, concluded that:

- (1) The line barrier is superior to patrolling as a means of infiltration interdiction but it is by no means impenetrable.
- (2) The river interdiction barriers cause the enemy severe operational problems as they greatly increase the enemy's logistic lead time and make it difficult to assemble the requisite material for a large scale operation.¹⁴⁰

Not only was the enemy logistics lead time increased, but his throughput was dramatically reduced as well. This became evident as the enemy was, "forced to stockpile supplies in many locations . . . result[ing] in large numbers of cache seizures by friendly forces."¹⁴¹

Another perspective on the impact of Allied interdiction efforts can be seen at the other end of the logistics pipeline. Well documented intelligence reports indicated that VC units in the Delta were "improperly equipped" and at times "short of rice during the harvest season when rice is easiest to obtain."¹⁴² Also, from the interrogations of PWs and enemy defectors, frequent complaints of severe shortages of equipment, particularly heavy crew-served weapons and large bulky ordnance, were received.¹⁴³

While both ends of the logistics pipeline indicated a high level of interdiction, the overall impact of Allied operations is ultimately measured in the enemy's ability to wage war. Commander Richard L. Schreadley stated that the long-term effects of the interdiction barriers seemed to have on the infiltration problem were:

1. Where in the past large shipments [15-20 sampan lots] had moved with virtual impunity across the border, shipments henceforth were made in two or three sampan lots and at great risk;
2. The enemy was unable to infiltrate and stockpile sufficient material in the Delta to sustain any significant offensive action, much less repeat the violence unleashed in the 1968 Tet offensive;
3. Enemy forces in the Delta were gradually starved for supplies and ammunition, and hard pressed to maintain themselves; and
4. Huge stockpiles accumulated just north of the border in Cambodia as the enemy waited for more propitious times to move them into South Vietnam.¹⁴⁴

These assessments show that the barriers were not impenetrable.

However, the barriers did establish a front of sorts and very possibly could have shut off virtually all infiltration had they received the required level of ground support.¹⁴⁵

The final indicator of campaign effectiveness, and the primary objective in the Delta, was pacification. Although the principle objective in the Ca Mau and Waterway Security operations, it was the

combination of all phases of the SEALORDS campaign which enabled "inhabitants along the waterways greater safety and freedom to move about in areas formerly controlled by the VC, thus enhancing economic development and the image of the government of Vietnam."¹⁴⁶ The increased level of security is the major key in allowing pacification efforts to take root. Security needs to be increased to the point where the local population can move freely before pacification can flourish. The CIA and MACV used the Hamlet Evaluation System (HES) which estimated security level in South Vietnam hamlets assigning a letter grade (A, B, C, D, E or V) per thousand hamlets. Full communist control of an area was indicated by a "V" letter grade. Letter grade "A" indicated an area with an "elected leadership living calmly in the village which was equipped with a school, local defense unit, a bustling market, and confidence."¹⁴⁷ Letter grades "B" through "E" provided evaluations of gradually lessened security levels. As clearly seen in fig. 18, there was a dramatic improvement from late 1967 to mid 1971 encompassing the SEALORDS campaign. Captain Arthur W. Price recounted that a more immediate visual indication of security was the general flourishing of the countryside. He noted that in the early 1960s, enemy territory appeared brown and dead, but following the establishment of SEALORDS "it was getting greener and greener the farther we went out."¹⁴⁸ He also noted, upon his return in 1971 that the delta was green as far as the eye could see. He attributed this to the local farmers ability "to grow their crops and move [them] to market without being harassed by anybody."¹⁴⁹ By all indicators, the SEALORDS campaign achieved a high degree of infiltration interdiction, enemy harassment, and pacification.

Analysis

Admiral Zumwalt very prophetically stated that "you have to make up riverine warfare as you go along."¹⁵⁰ Unpredictability has proven to be critical throughout history in order to keep the enemy from working inside your decision making cycle, but Zumwalt's conduct of the SEALORDS campaign also vividly showed that commanders need to execute campaigns utilizing sound military doctrine and complete integration of operations/assets. His bold restructuring of the entire COMNAVFORV command paid big dividends from the very start. In fact, following the assault phase of heavy MRF craft and supporting ground troops securing the waterway in a five day operation, a permanent naval patrol was established in the Search Turn operation. This marked the beginning of the integration of assault forces/operations with permanent naval patrols. We are also taught today in military courses that: if you truly desire to break the back of the enemy logistically, you must interdict his logistics flow while simultaneously launching operations that require him to more quickly consume supplies already on hand. The SEALORDS campaign did all these things very well as a result of exceptional leadership, planning, and coordination at the COMNAVFORV level.

Some have argued that the effort was fruitless and achievements moot, because the South Vietnamese were unable to sustain those achievements. The shortcomings at the strategic level, corruption in the host nation political structure, and lack of active popular support for the Saigon government throughout South Vietnam played a much larger role in SVN failure to sustain operational success in the Delta than the

accelerated time line for Vietnamization. The subsequent failure of the Vietnamese, in any case, does not appreciably detract from Allied accomplishments in SEALORDS.

The SEALORDS campaign vastly improved upon previous campaigns in the unity of command, integration/concentration of assets, flexibility, coordination of operations, innovation, and aggressiveness. However, even though aggressive in the conduct of operations, the MRF command structure was a significant detractor from maximum effectiveness and efficiency. Most MRF scholars agree that although it was tactically successful, if it had operated under a unified command, the MRF would have been significantly better. As one author states:

A remarkable organization was put together on the rivers and canals of the Delta. SEA LORDS meant unity of command and rapid response to changing tactical situations. . . . Tactics and techniques were developed and tested in the heat of combat, and at times even borrowed from the enemy, improved upon, and used to defeat him.¹⁵¹

The MRF planners learned and SEALORDS operations confirmed that, "intrusions into former Viet Cong bastions were possible only with the on-call support of naval aircraft and the heavily armed riverine assault craft."¹⁵² Game Warden and Market Time riverine campaigns were also improved upon by the integration of units and platforms throughout the Delta. In fact, "Naval leaders learned, as a result of hard experience, that patrol boat operations were most effective when conducted with surface, air, and ground forces."¹⁵³ Commander S. A. Swarztrauber, when commenting on river lessons learned, very astutely identifies one other important difference:

This concentrated linear deployment is what makes Sea Lords different. Game Warden operations previously were "diluted" throughout the 25,000-square-mile Delta. Continuing month after month, Sea Lords is believed to have been extremely successful,

judging from the sharp rise in fire fights and contact with the enemy. Casualties inflicted on the enemy in terms of men, boats, and supplies, similarly attest to the success of the operation.¹⁵⁴

SEALORDS became the mature riverine force in the Delta by exceptional planning and coordination at all levels, flexibility, innovation, aggressiveness, and new forward logistics basing and support. The degree of success achieved in this campaign not only dwarfs that of previous riverine operations in terms of pacification and damage inflicted on the enemy, but in providing a lasting affect that crippled the enemy war effort in the Delta as well. Dr Edward J. Marolda, Head of the Contemporary History Branch of the Naval Historical Center, who has written extensively on Vietnam riverine warfare, very succinctly provides the overall impact of SEALORDS in the Mekong Delta:

Combined with the loss of Sihanoukville as a port of entry for munitions destined for South Vietnam and the disruption of the supply system in the Cambodian border area, the SEALORDS campaign drastically reduced communist military strength in the regions north and west of Saigon. SEALORDS' success in the Mekong Delta probably was a major factor in the communist decision to launch their attacks elsewhere during the countrywide Easter Offensive of 1972.¹⁵⁵

Endnotes

¹Elmo R. Zumwalt, Jr., On Watch: A Memoir (New York: Quadrangle/The New York Times Book Company, 1976), 38.

²R. L. Schreadley, "The Naval War in Vietnam, 1950-1970," in Vietnam: The Naval Story by Frank Uhlig, Jr. (Annapolis, MD: Naval Institute Press, 1986), 294.

³"The Naval War in Vietnam, 1950-1970," 298.

⁴Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), I-1.

⁵Richard L. Schreadley, "SEA LORDS," U.S. Naval Institute Proceedings, 96 (August 1970: 22-31), 25.

⁶Edward J. Marolda and G. Wesley Pryce III, A Short History of the United States Navy and the Southeast Asian Conflict 1950-1975 (Washington, DC: Department of the Navy, Naval Historical Center, 1984), 76.

⁷"SEA LORDS," 24.

⁸Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1969 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (1).

⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 76.

¹⁰Edward J. Marolda, "The War in Vietnam's Shallows," Naval History, 1 (April 1987: 12-18), 17.

¹¹Robert C. Powers, "Beans and Bullets for Sea Lords," U.S. Naval Institute Proceedings 96 (December 1970: 95-97), 96.

¹²"SEA LORDS," 28.

¹³On Watch, 36.

¹⁴R. Blake Dunnavent, "SEALORDS: The Riverine Interdiction Campaign in Vietnam" (Master of Arts. Thesis, Texas Tech University, 1992), 82.

¹⁵Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1969 (Washington, DC: Naval Historical Center, 1969), 101.

¹⁶Jack M. White, "ACTOV-The U.S. Navy's Accelerated Turnover Program," U.S. Naval Institute Proceedings 96 (February 1970: 112-113), 112-113.

¹⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 77.

¹⁸Dunnavent, 56.

¹⁹James M. Howard, III, "Operation Deep Channel," U.S. Naval Institute Proceedings 97 (August 1971: 39-49), 40.

²⁰"Operation Deep Channel," 40.

²¹"Operation Deep Channel," 40.

²²"SEA LORDS," 27.

²³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), 14.

²⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), 14.

²⁵Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 4 of enclosure (2).

²⁶Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, April 1969 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (1).

²⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, November 1968 (Washington, DC: Naval Historical Center, 1968), page 1 of enclosure (1).

²⁸Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1969 (Washington, DC: Naval Historical Center, 1969), page 13 of enclosure (1).

²⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, August 1969 (Washington, DC: Naval Historical Center, 1970), 22.

³⁰Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1969 (Washington, DC: Naval Historical Center, 1969), 16.

³¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1969 (Washington, DC: Naval Historical Center, 1969), page 2 of enclosure (1).

³²"Beans and Bullets for Sea Lords," 97.

³³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), 14.

³⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, May 1969 (Washington, DC: Naval Historical Center, 1969), page 12 of enclosure (1).

³⁵Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 3 of enclosure (2).

³⁶Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 5.

³⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, December 1969 (Washington, DC: Naval Historical Center, 1970), 3.

³⁸Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1969 (Washington, DC: Naval Historical Center, 1969), 4.

³⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 16.

⁴⁰Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 5.

⁴¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, November 1969 (Washington, DC: Naval Historical Center, 1969), 9.

⁴²Dunnavent, 31.

⁴³R. L. Schreadley, From the Rivers to the Sea: The United States Navy in Vietnam (Annapolis, MD: Naval Institute Press, 1992), 217.

⁴⁴Dunnavent, 49.

⁴⁵"The Naval War in Vietnam, 1950-1970," 301.

⁴⁶Dunnavent, 50.

⁴⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, May 1970 (Washington, DC: Naval Historical Center, 1970), page 6 of enclosure (1).

⁴⁸Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, May 1970 (Washington, DC: Naval Historical Center, 1970), page 9 of enclosure (1).

⁴⁹"The War in Vietnam's Shallows," 18.

⁵⁰Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), 19-20.

⁵¹Dunnavent, 36-37.

⁵²Dunnavent, 34.

⁵³From the Rivers to the Sea, 161.

⁵⁴"The Naval War in Vietnam, 1950-1970," 302.

⁵⁵Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 5 of enclosure (2).

⁵⁶"The Naval War in Vietnam, 1950-1970," 302.

⁵⁷"The Naval War in Vietnam, 1950-1970," 297.

⁵⁸A Short History, 77.

⁵⁹"SEA LORDS," 30.

⁶⁰Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 2.

⁶¹A Short History, 77.

⁶²Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1969 (Washington, DC: Naval Historical Center, 1969), page 51A-51D of enclosure (3).

⁶³"The Naval War in Vietnam, 1950-1970," 299.

⁶⁴"The Naval War in Vietnam, 1950-1970," 297.

⁶⁵A Short History, 77.

- ⁶⁶"The Naval War in Vietnam, 1950-1970," 299.
- ⁶⁷"SEA LORDS," 30.
- ⁶⁸"The Naval War in Vietnam, 1950-1970," 300.
- ⁶⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, November 1969 (Washington, DC: Naval Historical Center, 1969), 33.
- ⁷⁰Edward J. Marolda, By Sea, Air, and Land (Washington DC: Naval Historical Center, Department of the Navy, 1994), 274.
- ⁷¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 13.
- ⁷²Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, December 1969 (Washington, DC: Naval Historical Center, 1970), 10.
- ⁷³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, November 1968 (Washington, DC: Naval Historical Center, 1968), page 2 of enclosure (1).
- ⁷⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 1-2.
- ⁷⁵Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 14.
- ⁷⁶Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1970 (Washington, DC: Naval Historical Center, 1970), page 19-20 of enclosure (3).
- ⁷⁷"The Naval War in Vietnam, 1959-1970," 296.
- ⁷⁸"SEA LORDS," 24.
- ⁷⁹Richard L. Schreadley, "Nothing to Report: A day on the Vam Co Tay," U.S. Naval Institute Proceedings 96 (December 1970: 23-27), 27.
- ⁸⁰Daniel B. Sheehan, "The Black Ponies," U.S. Naval Institute Proceedings 114 (April 1988: 84-88), 87.
- ⁸¹"The Black Ponies," 87.
- ⁸²"The Black Ponies," 87.
- ⁸³Dunnavent, 109.

⁸⁴Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-5.

⁸⁵Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-5.

⁸⁶Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-5 to II-6.

⁸⁷Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-6.

⁸⁸Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-5 to III-6.

⁸⁹S. A. Swarztrauber, "River Patrol Relearned," in Frank Uhlig, Jr. Vietnam: The Naval Story (Annapolis, MD: Naval Institute Press, 1986), 383.

⁹⁰Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-7.

⁹¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (1).

⁹²Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 2 of enclosure (1).

⁹³Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), VI-2.

⁹⁴"River Patrol Relearned," 382.

⁹⁵"River Patrol Relearned," 391.

⁹⁶"River Patrol Relearned," 391.

⁹⁷Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-7.

⁹⁸Dunnavent, 34.

⁹⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 25.

¹⁰⁰Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 69 of enclosure (3).

¹⁰¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, December 1968 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (2).

¹⁰²Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-4.

¹⁰³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1969 (Washington, DC: Naval Historical Center, 1969), page 11 of enclosure (1).

¹⁰⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, May 1969 (Washington, DC: Naval Historical Center, 1969), page 3 of enclosure (1).

¹⁰⁵Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-1 to III-2.

¹⁰⁶Norman Friedman, U.S. Small Combatants (Annapolis, MD: Naval Institute Press, 1987), 298.

¹⁰⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, September 1969 (Washington, DC: Naval Historical Center, 1969), 11.

¹⁰⁸Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-2 to III-3.

¹⁰⁹Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-3.

¹¹⁰Dunnavent, 73-74.

¹¹¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, July 1969 (Washington, DC: Naval Historical Center, 1969), 1.

¹¹²Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), page 4 of enclosure (5).

¹¹³"SEA LORDS," 30.

¹¹⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 25.

¹¹⁵U.S. Small Combatants, 356.

¹¹⁶Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, March 1969 (Washington, DC: Naval Historical Center, 1969), page 8 of enclosure (1).

¹¹⁷Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, August 1969 (Washington, DC: Naval Historical Center, 1970), 94.

¹¹⁸"SEA LORDS," 30.

¹¹⁹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, February 1969 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (2).

¹²⁰Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), V-4.

¹²¹J. F. Ebersole, "Skimmer Ops," U.S. Naval Institute Proceedings 100 (July 1974: 40-46), 45-46.

¹²²"The Naval War in Vietnam, 1950-1970," 298.

¹²³Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), III-4.

- ¹²⁴"SEA LORDS," 28.
- ¹²⁵Dunnavent, 45-46.
- ¹²⁶"The Black Ponies," 87.
- ¹²⁷"The Black Ponies," 85.
- ¹²⁸"The Black Ponies," 84.
- ¹²⁹Dunnavent, 111-112.
- ¹³⁰Dunnavent, 44-45.
- ¹³¹Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, June 1969 (Washington, DC: Naval Historical Center, 1969), 15.
- ¹³²"Skimmer Ops," 46.
- ¹³³Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, December 1968 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (2).
- ¹³⁴Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, April 1969 (Washington, DC: Naval Historical Center, 1969), page 1 of enclosure (9).
- ¹³⁵Edward J. Marolda, "The War in Vietnam's Shallows," Naval History, 1 (April 1987: 12-18), 17-18.
- ¹³⁶"SEA LORDS," 29.
- ¹³⁷"SEA LORDS," 30.
- ¹³⁸Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), V-2.
- ¹³⁹"SEA LORDS," 29.
- ¹⁴⁰Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), i.
- ¹⁴¹Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), VII-1.

¹⁴²Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 2.

¹⁴³Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), V-4.

¹⁴⁴"The Naval War in Vietnam, 1950-1970," 295.

¹⁴⁵"The Naval War in Vietnam, 1950-1970," 295.

¹⁴⁶Department of the Navy, U.S. Naval Forces, Vietnam, Monthly Historical Summary, October 1969 (Washington, DC: Naval Historical Center, 1969), 2.

¹⁴⁷William Egan Colby, Lost Victory: A Firsthand Account of America's Sixteen-Year Involvement in Vietnam (Chicago: Contemporary Books, 1989), 190.

¹⁴⁸Dunnavent, 120-121.

¹⁴⁹Dunnavent, 120-121.

¹⁵⁰On Watch, 38.

¹⁵¹"SEA LORDS," 31.

¹⁵²By Sea, Air, and Land, 269.

¹⁵³"The War in Vietnam's Shallows," 18.

¹⁵⁴"River Patrol Relearned," 405.

¹⁵⁵"The War in Vietnam's Shallows," 18.

CHAPTER 5

IMPLICATIONS FOR THE TWENTY-FIRST CENTURY

First, the river patrol forces have done a most creditable job. They saved several provincial capitals during Tet. They have made the rivers safe for passage by innocent civilians and friendly forces. They have eliminated the Viet Cong tax collector as a serious problem on the rivers. They have denied the Viet Cong the option to transit rivers, restricting Viet Cong use of the rivers to clandestine crossings. They have increasingly disrupted and complicated the enemy's logistics efforts, especially since commencement of Operation Sea Lords, contributing directly to a progressive deterioration of the enemy's logistics base and morale. They have steadily advanced on the enemy. Although they have sustained losses, they have inflicted 40-fold losses upon the enemy. They have racked up their brilliant record from a sleeping, not a running, or even a standing, start. Moreover, they have achieved their record with a force small both in men and equipment. Their manpower represents less than one-half of one percent of the number of Americans in Vietnam. Their principal assets, PBRs and Seawolves, are very cheap, as naval watercraft go.¹

Commander S. A. Swarztrauber, Vietnam: The Naval Story

Conclusions

The evolution of the U.S. riverine force in Vietnam is replete with lessons learned for both force structure and the conduct of operations. One lesson is that readiness and preparation saves lives and makes victory easier to achieve. This is a lesson taught by the experience of Game Warden and TF-116. The Game Warden campaign provides an example of how victory can be gained by employing a force that has been quickly assembled from scratch, but that there is a price to be

paid in getting up to speed. Task Force 116 became a potent force in the Delta and accomplished campaign objectives; however,

it took three years to build it to that level. Who can say how many men died, and how many achievable victories were missed because we were too low on the relearning curve: relearning, by trial and error, the details of combat tactics, relearning how to repair, supply, and otherwise support a river force.⁴

Game Warden also illustrates a number of practical lessons for riverine operations. It shows that inadequate shore base facilities can be augmented by afloat basing, and that CAS is critical to survivability in a river patrol environment. Unfortunately, Game Warden also highlighted the fact that river patrol operations are basically defensive in nature and lack the offensive capability to project power landward. Although Game Warden was very successful in denying enemy use of the major waterways of the Delta, Christopher Abel correctly pointed out in 1982 that other steps needed to be taken:

Yet Task Force 116 was simply not enough, and the reason was as simple as the solution: aggressive and successful riverine combat is carried out from the water and not merely on it. As such, Game Warden units were seriously hamstrung by the absence of an organic ground force capable of carrying the battle to the enemy ashore.⁵

Mobile Riverine Force (MRF) operations brought a very different set of lessons learned. Units executing their predominantly "search and destroy" missions achieved resounding tactical/operational success in most operations, but their counter-productive effect on pacification underscored the need to integrate strategic objectives into the campaign plan from the beginning. Analysis of these operations also brought out the fact that a disjointed command structure can be overcome through professionalism and a keen sense of the need for cooperation and a healthy dose of compromise on many occasions. But as noted by Abel,

"The simple fact of the matter is that such a herculean internal effort should never have been demanded from individuals already preoccupied with the deadly business of fighting a guerilla war in a foreign land."⁴ Although MRF operations provided a good indicator of the degree of success that can be achieved by integration of assets and coordination with other efforts, they also highlighted the fact that this type of mission produces only temporary success unless followed by a sustained presence. MRF operations showed that heavily armed and armored craft are necessary for effectiveness in the restricted environment where the enemy is likely to establish his support infrastructure. The MRF also capitalized on the advantages of air mobile integration in containing an elusive guerilla foe and forcing him into combat. Lastly, Task Force 117 demonstrated the great advantages gained in surprise and mobility by using a Mobile River Base (MRB) concept.

SEALORDS was the epitome of a truly mature riverine force. Doctrine, tactics, training, and experience were already established within the three Task Forces and the best of each was combined into one force structure, Task Force 194. Aggressive leadership from the top fostered audacity, innovation, total asset integration, flexibility, and close coordination at all levels. Isolation of the battlefield and a masterful blending of simultaneous operations built a cohesive and effective campaign that achieved decisive results and lasting affects. Game Warden, MRF operations, and SEALORDS all identified how new tactics, techniques and technology can endow significant advantages and minimize weaknesses, but SEALORDS showed how aggressive and innovative

employment of these improvements can significantly multiply the effects. SEALORDS also gave numerous examples of how forward/remote basing can be utilized to effectively support distant operations. Lastly, this final campaign showed how unrelenting and unpredictable pressure must be applied to the enemy across the full spectrum of war in order to achieve lasting results.

If the United States military is to build the riverine force of the future, it should be modeled after Task Force 194, which conducted the SEALORDS campaign. At a minimum, that future riverine force must be structured and resourced to have:

1. Sufficient ground troop support
2. A unified joint command structure capable of combined operations
3. Fast, agile craft with enough armor and armament to engage at close range
4. High tech sensors for Early Warning
5. Sufficient assets to isolate the battlefield, or be capable of receiving operational control of sufficient assets to do so
6. Doctrine which ensures close coordination and integration of all assets and operations
7. The capability of establishing forward basing and logistics
8. Well trained and operationally ready personnel/craft
9. Air superiority provided from an external source, such as Air Force or Navy/Marine air

Historical Precedence for Future Need

During its history the United States has been involved in major riverine operations at least thirteen times and, given geographical situations around the world, it is reasonable to assume that such

operations will occur again. An article written in 1968 entitled "Riverine Warfare: A Forgotten Capability Redeveloped," identified environments existing throughout the world that potentially could require the United States to engage in future riverine warfare:

The riverine confluence in many emerging nations of Latin America, Asia, and Africa and their geographical location make them particularly vulnerable to waterborne subversion and insurgency. There the greatest population density is along coastal lowlands and rivers, and like South Vietnamese, the people depend on waterways for fishing, transportation, communication and commerce.⁵

A 1982 article entitled, "Forgotten Lessons of Riverine Warfare," very accurately outlines the great strategic importance of these inland waterway environments, the need for a coherent riverine force, and the United States historical neglect for riverine capability:

A nation's rivers are its territorial arteries, carrying the lifeblood of commerce and communications to peoples and regions throughout the land. Moreover, many internal waterways tie inland areas to the sea, transforming them into major international highways. In addition, virtually all are potential natural barriers of the first order. Thus, from a military standpoint, the control of an adversary's inland waterways can be a multifaceted weapon of immense strategic importance. Indeed, history is replete with examples of the critical role which capably trained riverine forces played in time of war. Yet, despite its undeniable significance, the doctrine of riverine warfare has traditionally been neglected by the United States. As a consequence, American soldiers and sailors have consequently been forced to learn and relearn the more or less timeless lessons of riverine combat under the press of battle. While these tragic trial-and-error episodes of the past cannot be undone, they certainly need not be repeated in the future.⁶

The reason for this unfortunate phenomenon of the past is described by one author as a lack of responsibility for this capability residing with any single military service:

That the past lessons of riverine warfare had not been retained, refined, and applied to subsequent conflicts was largely a product of organizational dynamics within the American military hierarchy. To be sure, neither the Army nor the Navy was ever made wholly responsible for the prosecution of combat from inland waters. Instead, for more than 100 years, the riverine forces of the United

States consisted of bastard units composed of elements from both services acting under a succession of joint command structures. As a result, neither organization was ever able to view riverine warfare as a specialty reserved for itself. Instead, both saw the phenomenon as at least partially the province of the other branch and so generally ignored it. This institutional inertia virtually guaranteed that American riverine combat expertise would never be able to survive any peacetime period.⁷

History, unfortunately, has repeatedly shown that riverine warfare is much too specialized to leave neglected until the need arises.

In addition to showing the need for riverine forces, history also indicates the likely way these forces will be used. Summing up the U.S. experience in Vietnam, Commander S. A. Swarztrauber, U.S. Navy, described the progression of operations as follows:

First, the main thrust of the river patrol operation gradually has moved inland, farther and farther from the "security" of the sea. . . . Second, the patrol force has progressively moved off the big rivers and into the secondary rivers, canals, and bayous. . . . Third, the river patrol units have been gravitating from fixed bases ashore to mobile bases afloat. Early in 1967, 88 per cent of the bases were ashore; by 1969, only 36 per cent were. Fourth, the U.S. river patrol units have moved steadily away from their original dual role as advisors and operators to one that became more independent. They were completely oriented toward operations until the rapid turnover of assets and Vietnamization began in 1969. Fifth, the river patrol units have shifted from what was essentially a defensive posture to one that has been increasingly aggressive.⁸

From his comments it is clear that what is needed are riverine forces that are well trained, resourced, and ready to conduct operations across the full spectrum of warfare.

Recommendations

In 1992 the Navy-Marine Corps paper ...From The Sea defined the strategic concept intended to carry the Naval Service--the Navy and Marine Corps--beyond the Cold War and into the 21st century. It signaled a change in focus and, therefore, in priorities for the Naval Service away from operations on the sea toward power projection and the employment of naval forces from the sea to influence events in the "littoral regions" of the world--those areas

adjacent to the oceans and seas that are within direct control of and vulnerable to the striking power of sea-based forces.⁹

Letter Signed by the Current Secretary of the Navy, Chief of Naval Operations, and Commandant of the Marine Corps.

The recently released Navy and Marine Corps "White Paper" entitled Forward ...From the Sea, which contains this letter, provides basic guidance as to the applicability of riverine forces, force structure, and possible deployment/employment methods for the Navy of the twenty-first century. Clearly, the focus of U.S. naval forces in recent years has shifted landward, which brings the riverine environment much more to the forefront. In fact, "it is in the world's littorals where the Naval Service . . . can influence events ashore in support of our interests."¹⁰

A future study should be conducted to fully identify the force structure requirements and resourcing now needed to cope with this new strategic vision. However, on two major points the historical record has already spoken. Our current lack of readiness is reflected in the following statement from 1982:

At present, the only active U.S. riverine resources are the men and boats of the Navy's two Special Warfare Groups [oriented toward raids and patrols] In short, no trained force capable of carrying out sustained riverine operations against an enemy ashore exist today.¹¹

What might be needed to assure quick reaction deployability in support of two near-simultaneous regional contingencies, is contained in a Navy proposal of August 1968. After the war the Navy wanted "sufficient craft for two new RASs in each of FY 70 and FY 71, leaving one RAS for the Pacific and one for the Atlantic."¹²

Presently, as of June 1994, the United States Marine Corps has one Small Craft Company which contained two Assault Craft Platoons based at Camp Lejeune, North Carolina. These two platoons as well as other elements of the company train in riverine assault operations in support of the notional 2nd Marine Division Mobile Riverine Force. Each platoon is equipped with seven 39-foot twin diesel jet powered Riverine Assault Craft (RAC). The Small Craft Company was formed within the 2nd Marine Division and is the only organization of its kind in the Marine Corps. However, the Division's primary focus has been in Latin American (LATAM) Foreign Training and Counter Narcotics operations. For numerous reasons, 2nd Marine Division has also placed increased emphasis on utilizing Rigid Raid Craft (RRC) in support of riverine operations. These craft were originally used by the Marine Expeditionary Units (MEUs) for small unit amphibious operations. As a result of this shift, the Small Craft Company added Raid Craft Platoons. The Assault Craft Platoons and Raid Craft Platoons combine to support the 6th Marine Regiment in forming a Mobile Riverine Force (MRF). The current Mobile Riverine Force is modeled in many ways after the MRF used in Vietnam.¹³

The Navy SEALs have a Special Boat Unit (SBU) on each coast, at Little Creek and NAS Coronado, and a reserve SBU at both Vallejo and New Orleans. The reserve SBUs maintain and operate the Vietnam era craft, such as ATC, PBR and monitors. The active duty SBUs at Coronado and Little Creek have approximately thirty to thirty-five boats ranging in size from 24-foot Rigid Inflatable Boats (RIBs) to 170-foot Patrol Coastal (PC) craft and including such special boats as the High Speed Boats (HSBs) commonly known as "Cigarette Boats." The SEALs/SBUs are

trained in coastal patrol, river interdiction, and SEAL insertion/extraction. The new Mark Five riverine craft, which is 82-foot long and has a speed of fifty knots, is currently in final testing, with a delivery date to Little Creek of July 1995. Two other important items that the SEALs/SBUs have are excellent communications capability and professional coxswain training. The SEALs regularly deploy with the ARG/MAGTF as a SEAL platoon consisting of two officers, fourteen enlisted personnel and one RIB detachment.¹⁴

The Navy/Marine Corps doctrinal white paper points out that "the potential for escalation dictates that presence forces must be shaped for missions they may encounter,"¹⁵ and be able "to provide a joint force capable of the full range of combat operations that may be required."¹⁶ It further states that, "The keys to our enabling mission are effective means in place to dominate and exploit littoral battlespace during the earliest phases of hostilities."¹⁷ These observations, coupled with historical precedence, underscore the need for quickly deployable combat ready riverine forces to meet threats in the littoral areas of the twenty-first-century world.

This same doctrinal paper indicates that in the next century "using the building-block approach, U.S. naval forces can be 'tailored' with specific capabilities."¹⁸ It further identifies the basic components of this approach, "Aircraft Carrier Battle Groups . . . and Amphibious Ready Groups."¹⁹ With that in mind, the logical place for deployment of future riverine forces would be with the Amphibious Ready Group (ARG). The Marine Air Ground Task Force (MAGTF) seems to be the best place for deployment within the ARG, since MAGTFs regularly deploy

with the ARG and the Navy outlook on the future, Forward ...From the Sea, indicates that:

MAGTFs are expeditionary, rapidly expandable air-ground formations, capable of operating from sea bases, ashore, or both, simultaneously. They are the model for the joint air-ground task forces evolving as conflicts grow smaller and the forces available grow fewer.²⁰

The requirement for joint operations is well published today and "our national strategy calls for the individual services to operate jointly,"²¹ so the basic Marine and SEAL components which are currently operating should regularly train and be prepared to deploy as a cohesive force. If military spending is going to continue to reflect the shift in Naval focus toward littoral operations, riverine forces should not be overlooked. In fact, the urgent need for their expansion is seen in the white paper statement:

Recent Department of the Navy budget decisions, which resulted in a real increase in spending on littoral warfare and the means for power projection, are illustrative of the shift in priorities we have undertaken since the publication of ...From The Sea.²²

Commander Swarztrauber very prophetically wrote in 1986:

I believe we should maintain a river patrol nucleus on each coast, perhaps a small squadron. Such a squadron, under the amphibious or destroyer type command, and under the guidance of the CNO, could keep alive the procedures, tactics, and lessons learned; it could work on improving concepts and hardware; and it could provide a training and expansion nucleus in the hopefully avoidable event that we ever again have to mount a river patrol campaign. A modest inventory of PBRs and gunships would not be expensive. And, most important, we would not have to start from scratch again. We certainly have learned one thing: not having a river patrol force is no guarantee that we will not have to fight a river war.²³

The Marine riverine force today is modeled after the MRF. The Navy SEAL/SBU riverine force conducts patrol, river interdiction, and SEAL insertion/extraction which is indicative of Game Warden operations. The SEALORDS campaign clearly showed that these two must be combined and

augmented to become truly effective. It is recommended that the Navy SEALS/SBUs retain responsibility for U.S. riverine warfare and be expanded and established as the nucleus of U.S. Riverine Force Command. However, the Marine riverine force must also be expanded and integrated as part of that force to provide the CAS, riverine/overland assault capabilities, and ground troop support.

Further Study

Recommended areas for further study include:

1. Riverine force structure requirements and resourcing
2. Current regions of interest to the United States that have a riverine type environment
3. Methods of integrating SEAL/Marine capability and orchestration of operational control for further assigned units, such as CAS helicopters and additional ground troops

Endnotes

¹S. A. Swarztrauber, "River Patrol Relearned," in Frank Uhlig, Jr. Vietnam: The Naval Story (Annapolis, MD: Naval Institute Press, 1986), 409.

²"River Patrol Relearned," 409.

³Christopher A. Abel, "Forgotten Lessons of Riverine Warfare," U.S. Naval Institute Proceedings 108(January 1982: 64-68), 66.

⁴"Forgotten Lessons of Riverine Warfare," 68.

⁵Daniel J. Carrison, "Riverine Warfare: A Forgotten Capability Redeveloped," Data 13(December 1968: 29-31), 30.

⁶"Forgotten Lessons of Riverine Warfare," 64-65.

⁷"Forgotten Lessons of Riverine Warfare," 66.

⁸"River Patrol Relearned," 409.

⁹Department of the Navy, Forward ...From The Sea (Washington, DC: April 1995), cover letter.

¹⁰Forward ...From the Sea, 2.

¹¹"Forgotten Lessons of Riverine Warfare," 68.

¹²Norman Friedman, U.S. Small Combatants (Annapolis, MD: Naval Institute Press, 1987), 363.

¹³Telephone interview of Major James J. Emerson, USMC, on 26 April 1995. Major Emerson is the former S-4 of Headquarters Battalion, 2nd Marine Division. He coordinated the logistics for the initial creation, deployment, and operation of the Small Craft Company prior to detaching in June 1994 to attend Command and General Staff College, Fort Leavenworth Kansas.

¹⁴Telephone interview of LCDR Alan Oshirak, USN, on 26 April 1995. LCDR Oshirak is a UDT/SEAL who is currently slated to assume the Executive Officer billet at SBU 20 in June 1995.

¹⁵Forward ..., 5.

¹⁶Forward ..., 5.

¹⁷Forward ..., 7.

¹⁸Forward ..., 6.

¹⁹Forward ..., 4.

²⁰Forward ..., 8.

²¹Forward ..., 7.

²²Forward ..., 8.

²³"River Patrol Relearned," 410.

ILLUSTRATIONS

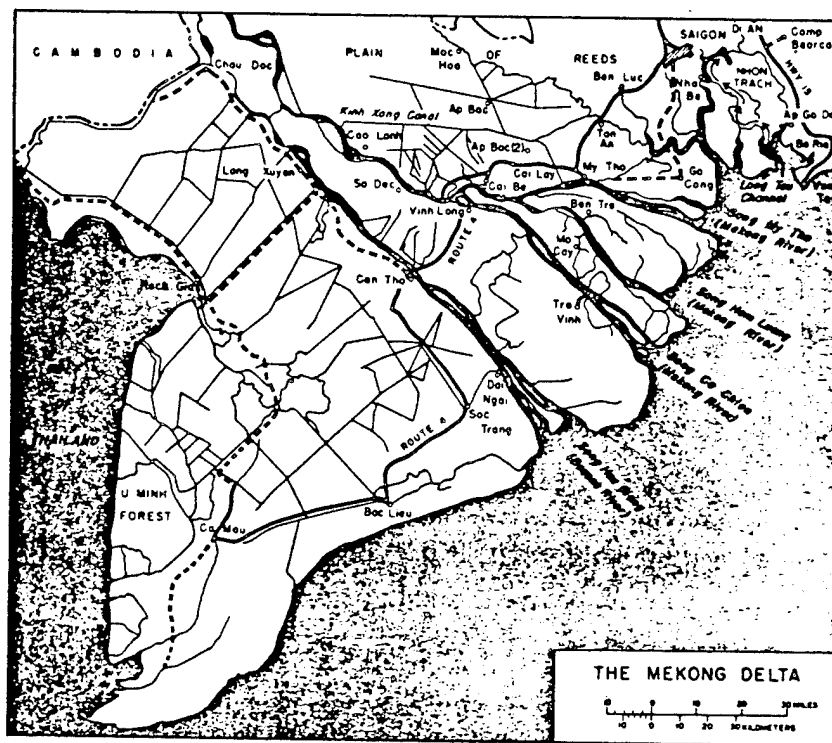


Fig. 3. The Mekong Delta. From William B. Fulton, Vietnam Studies: Riverine Operations 1966-1969 (Washington, DC: Department of the Army, 1973), 17.

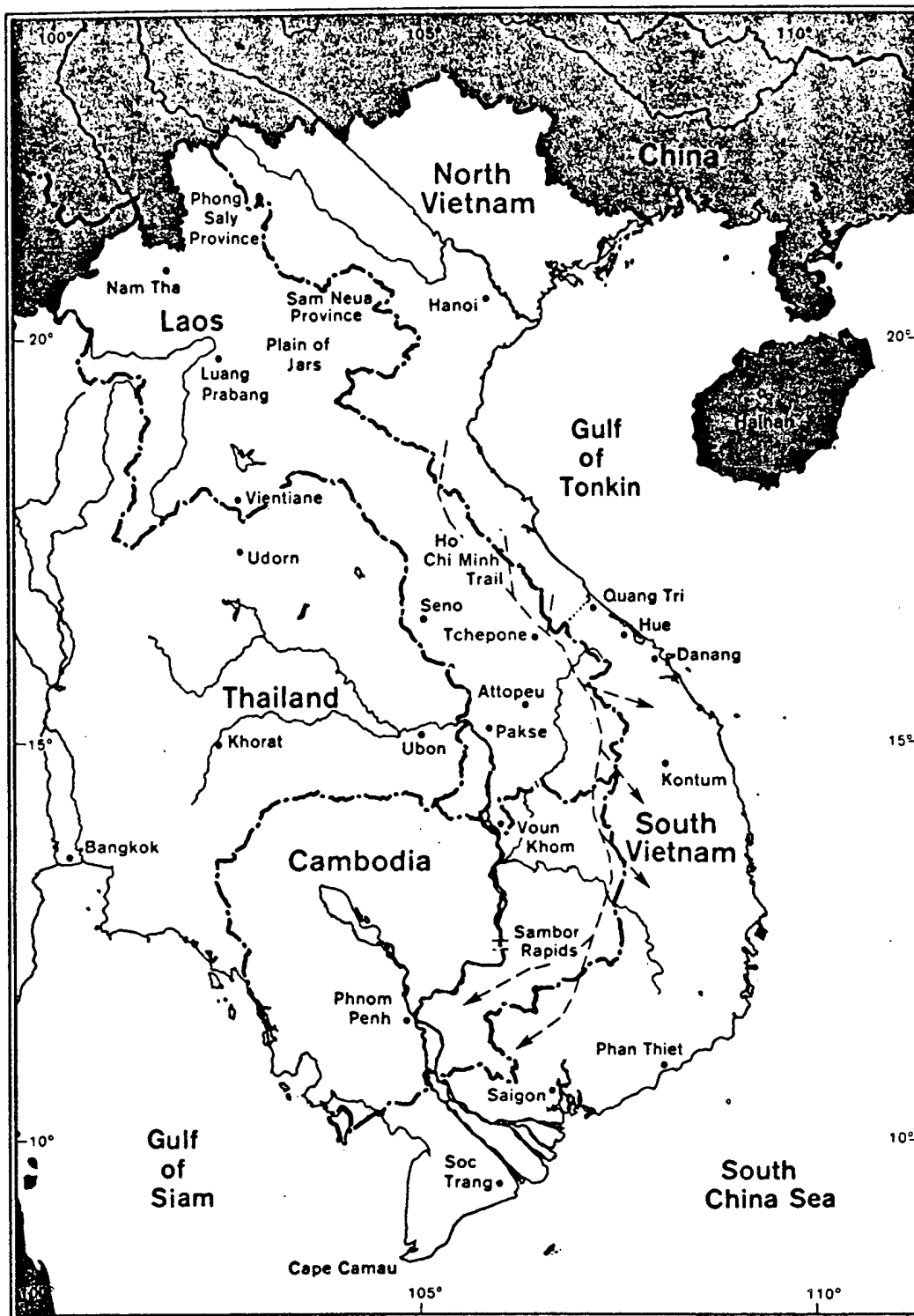


Fig. 4. Mainland Southeast Asia. From Edward J. Marolda, By Sea, Air, and Land: An Illustrated History of the U.S. Navy and the War in Southeast Asia (Washington, DC: Naval Historical Center, Department of the Navy, 1994), 14.

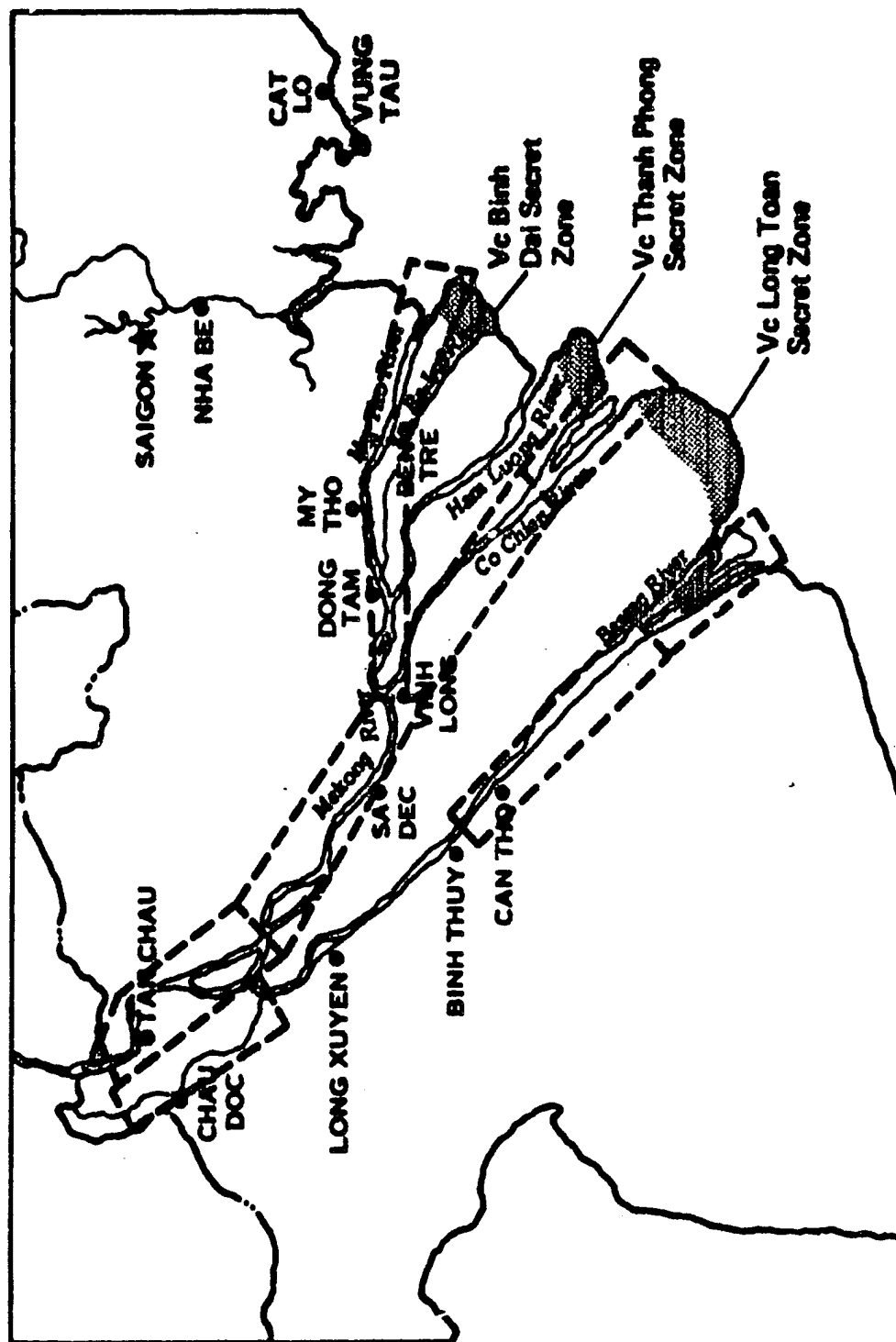


Fig. 6. PBR Bases and River Sections, 1966. From Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analysis, 1976), 31.

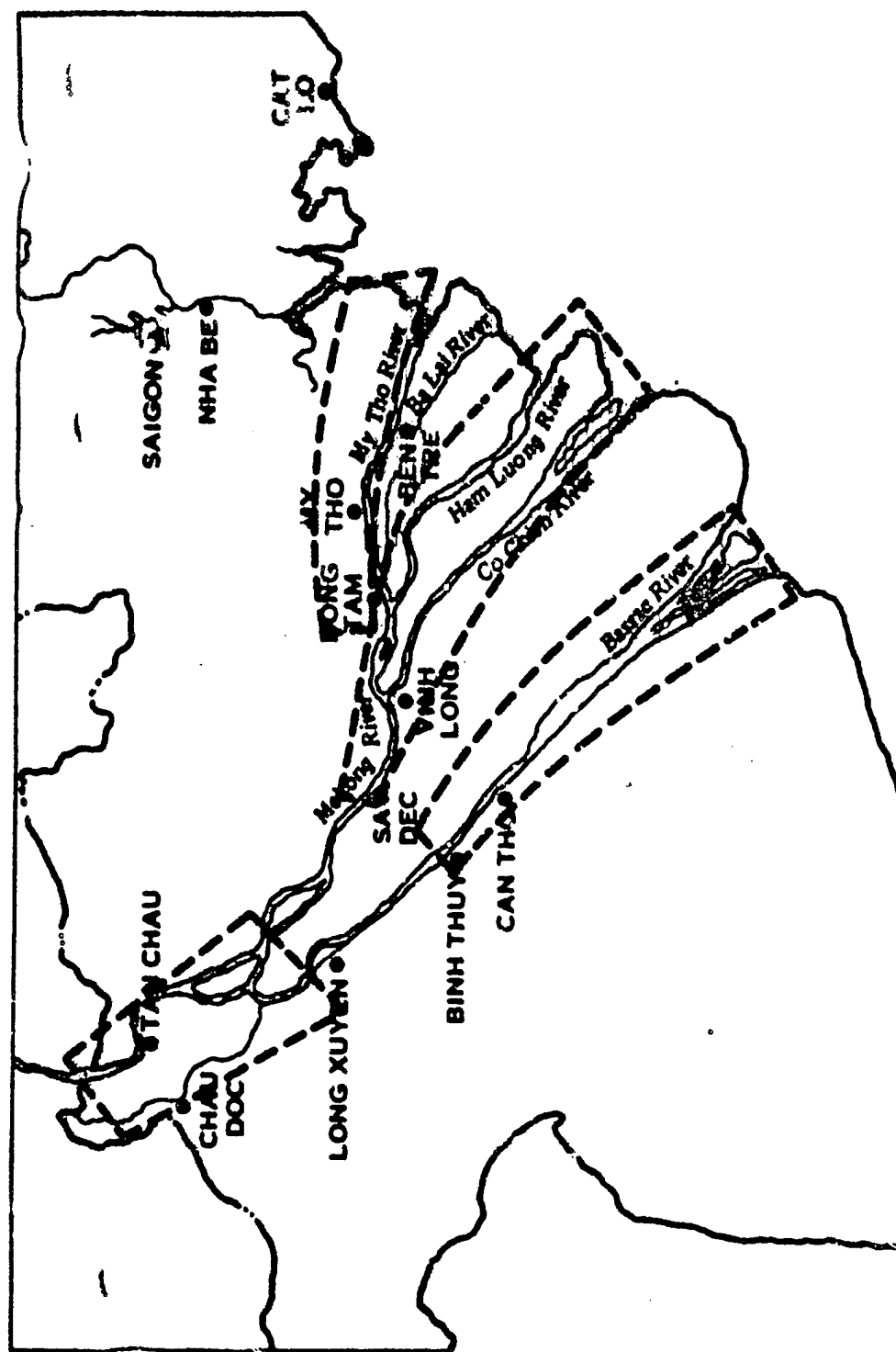


Fig. 7. Game Warden Patrol Areas, 1968. From Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analysis, 1976), 34.

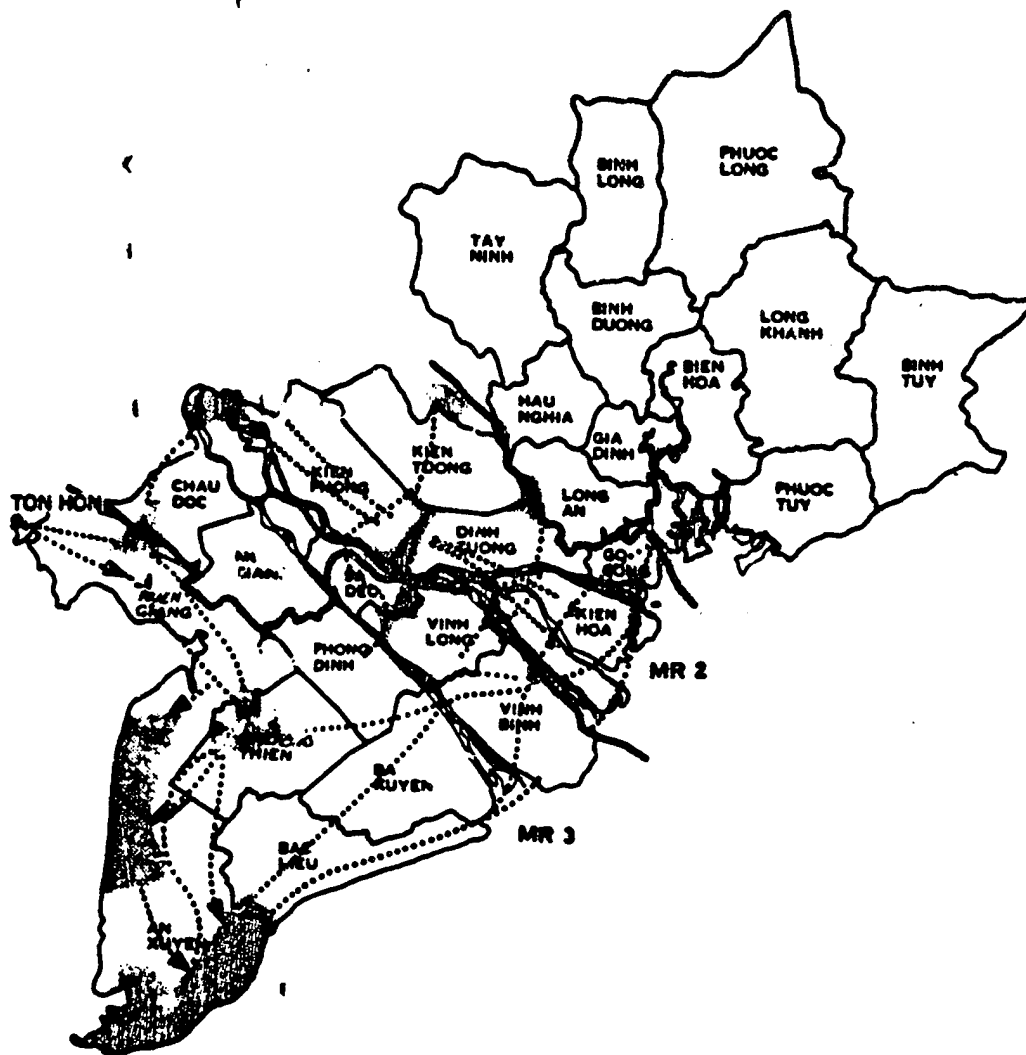


Fig. 8. Suspected IV Corps Supply Routes. From Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analysis, 1976), A-9.

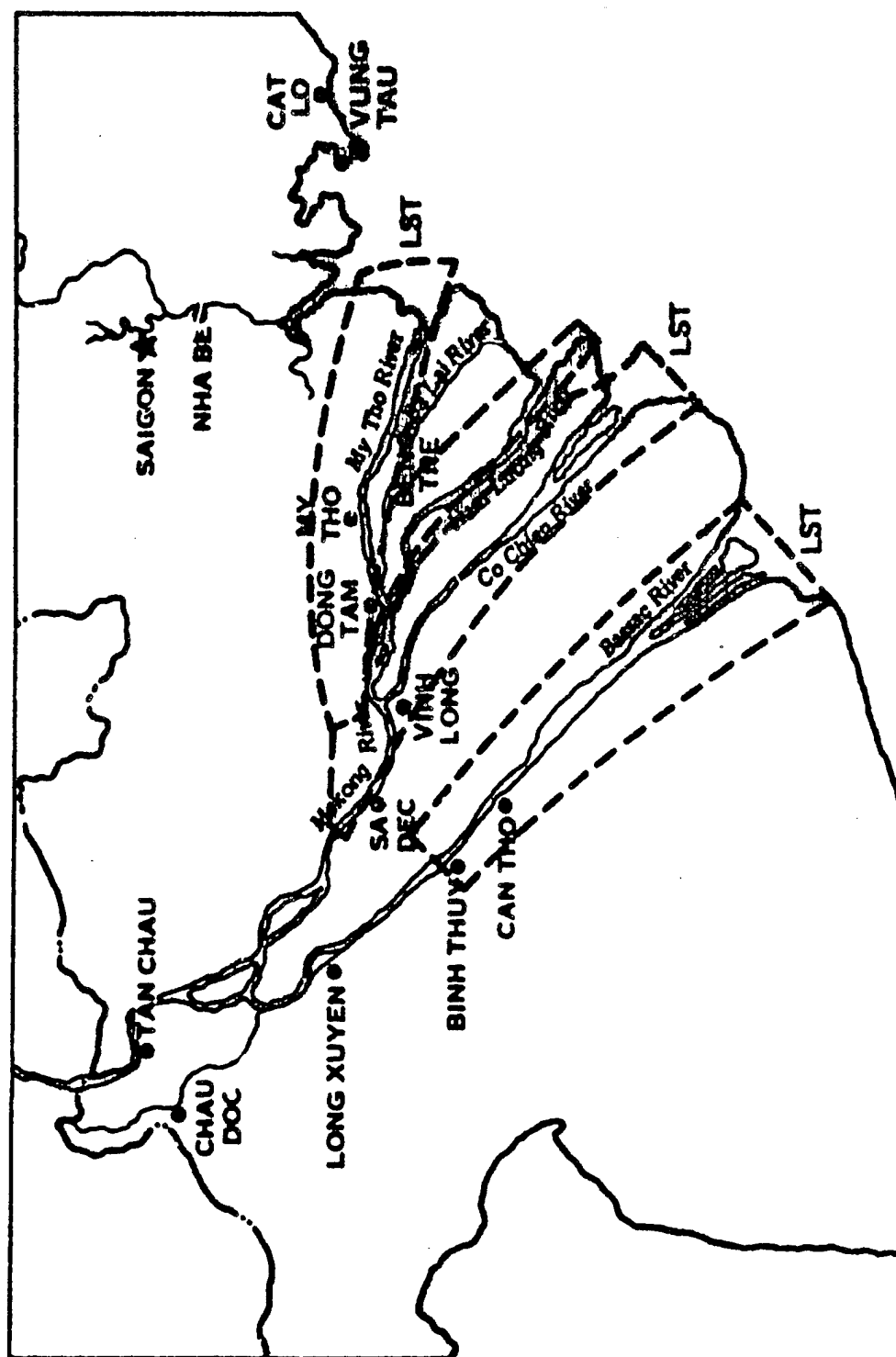


Fig. 9. Game Warden Patrol Areas at the End of 1967. From Department of the Navy, Operations Evaluation Group, "Game Warden" (Arlington, VA: Center for Naval Analysis, 1976), 33.

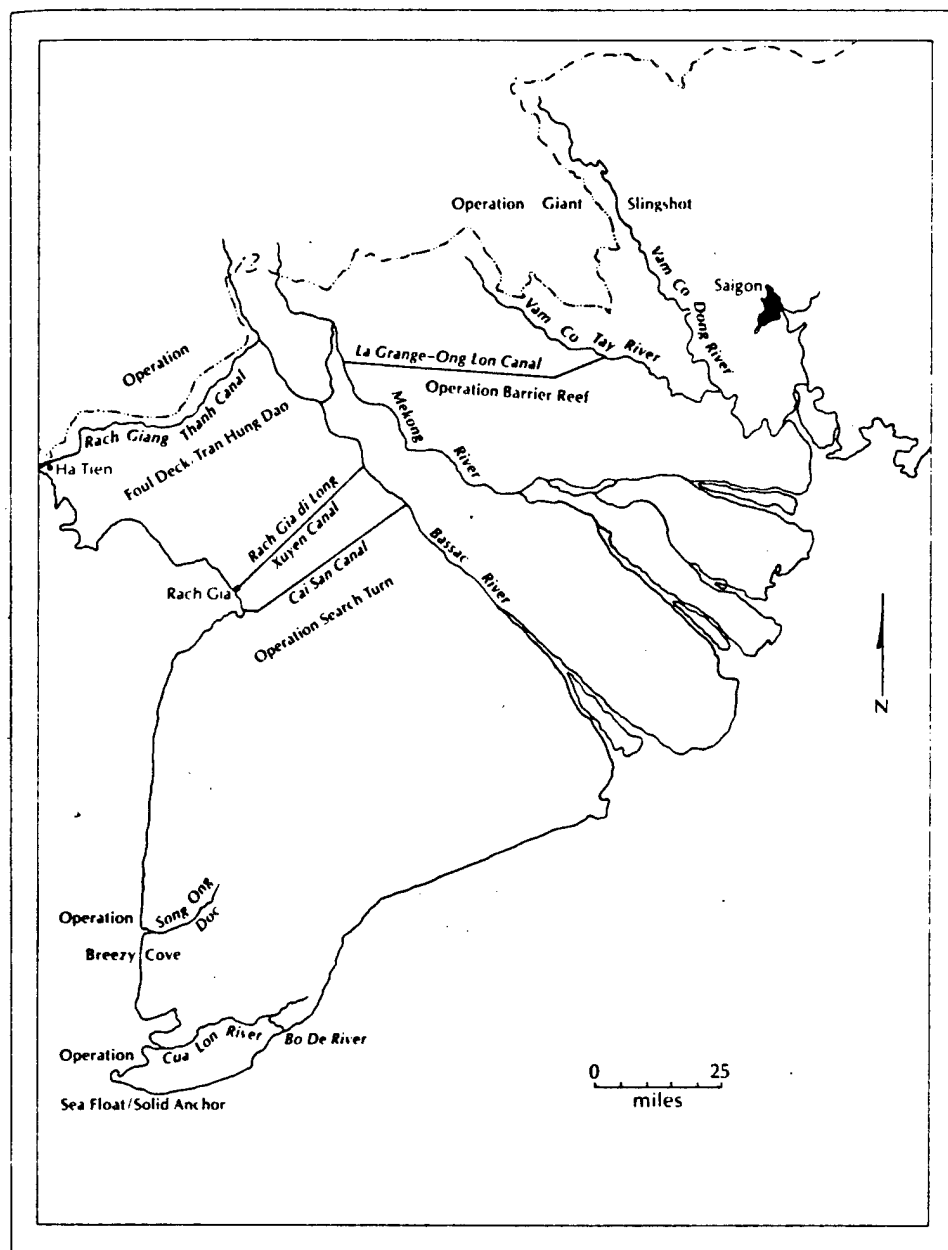


Fig. 11. Selected SEALORDS Operations. From Thomas J. Cutler, Brown Water, Black Berets: Coastal and Riverine Warfare in Vietnam (Annapolis, MD: Naval Institute Press, 1988), 295.

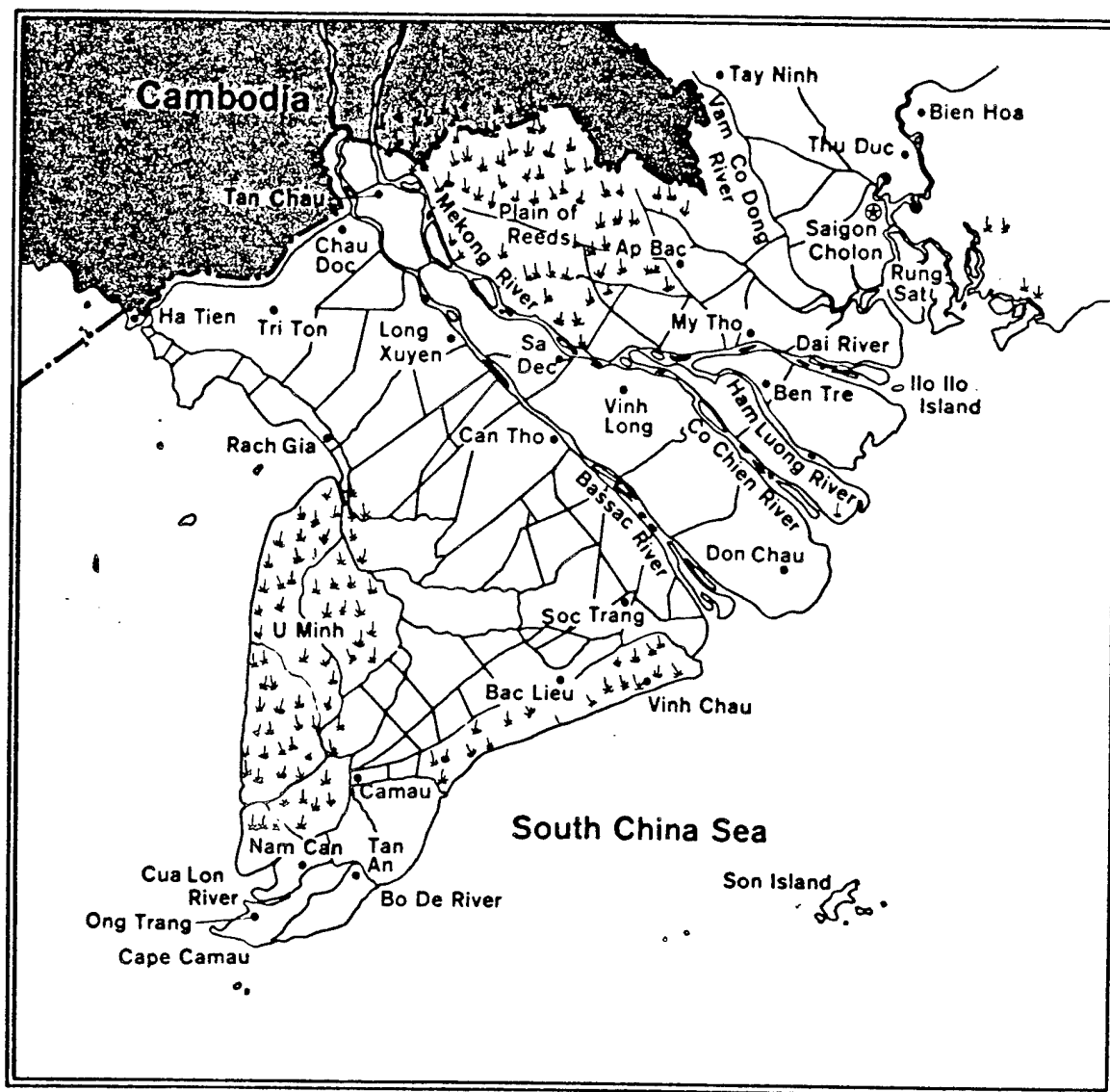


Fig. 12. The SEALORDS Operational Theater. From Edward J. Marolda, By Sea, Air, and Land: An Illustrated History of the U.S. Navy and the War in Southeast Asia (Washington, DC: Naval Historical Center, Department of the Navy, 1994), 265.

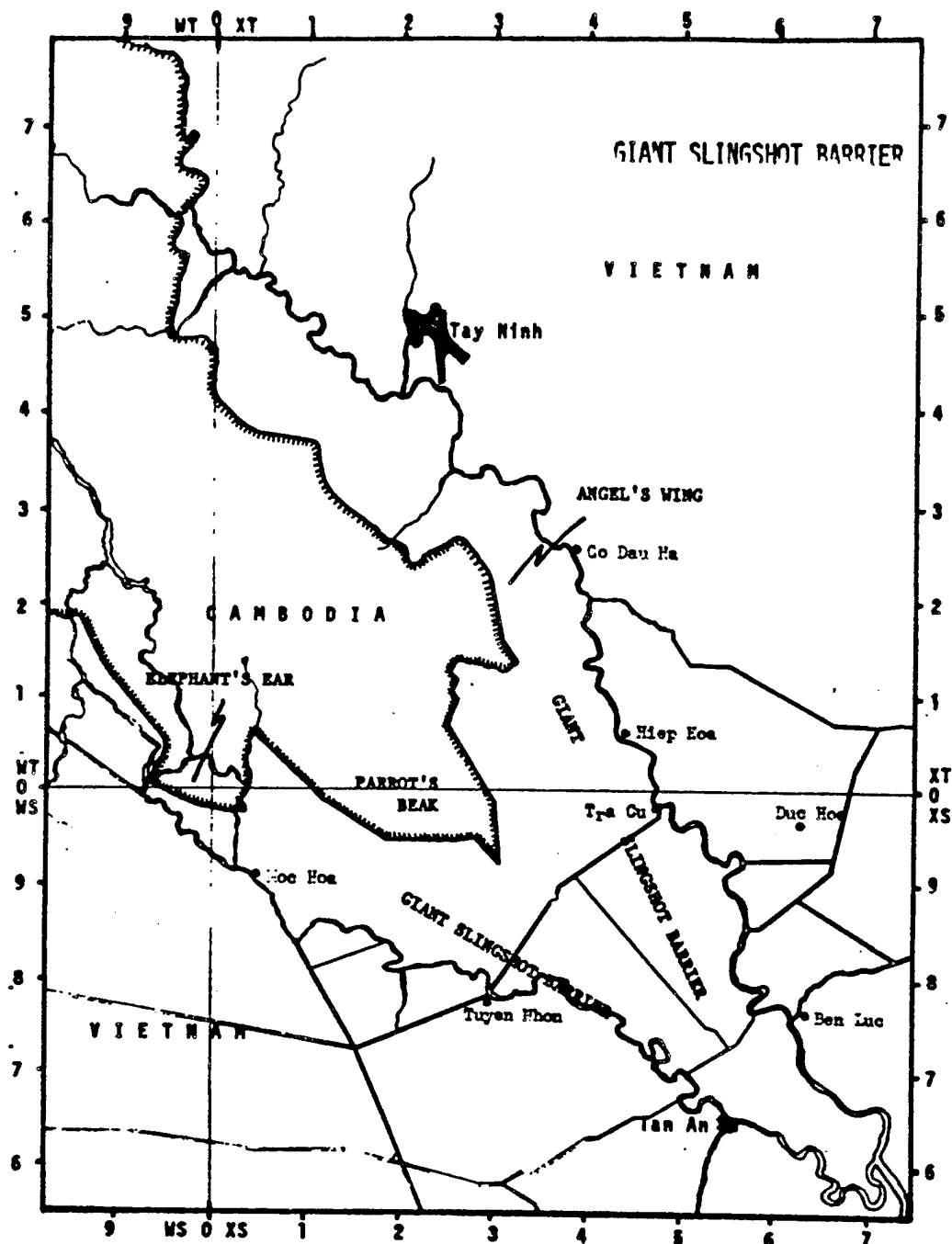


Fig. 14. Giant Slingshot Barrier. From Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-5.

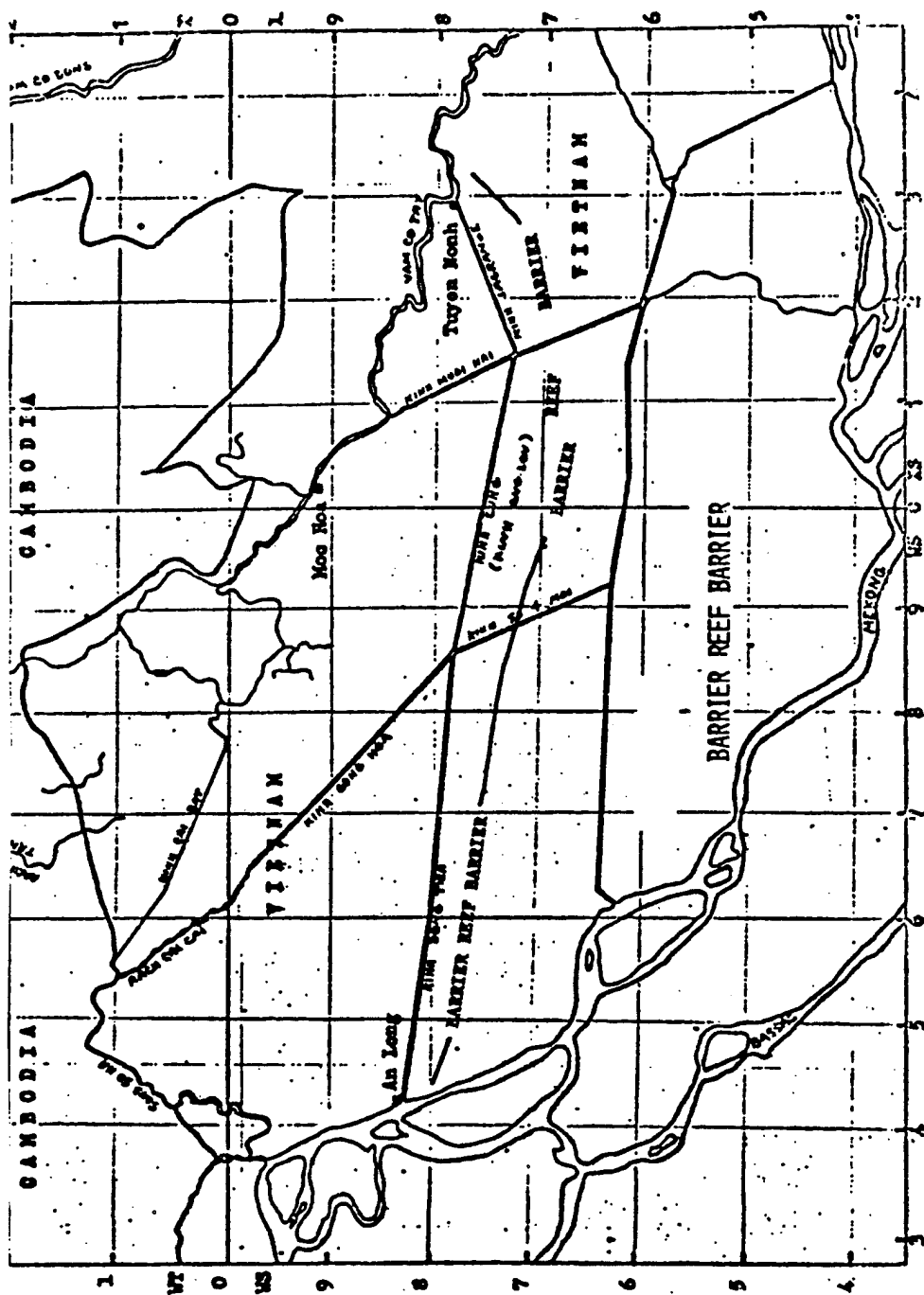


Fig. 15. Barrier Reef Barrier. From Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-4.

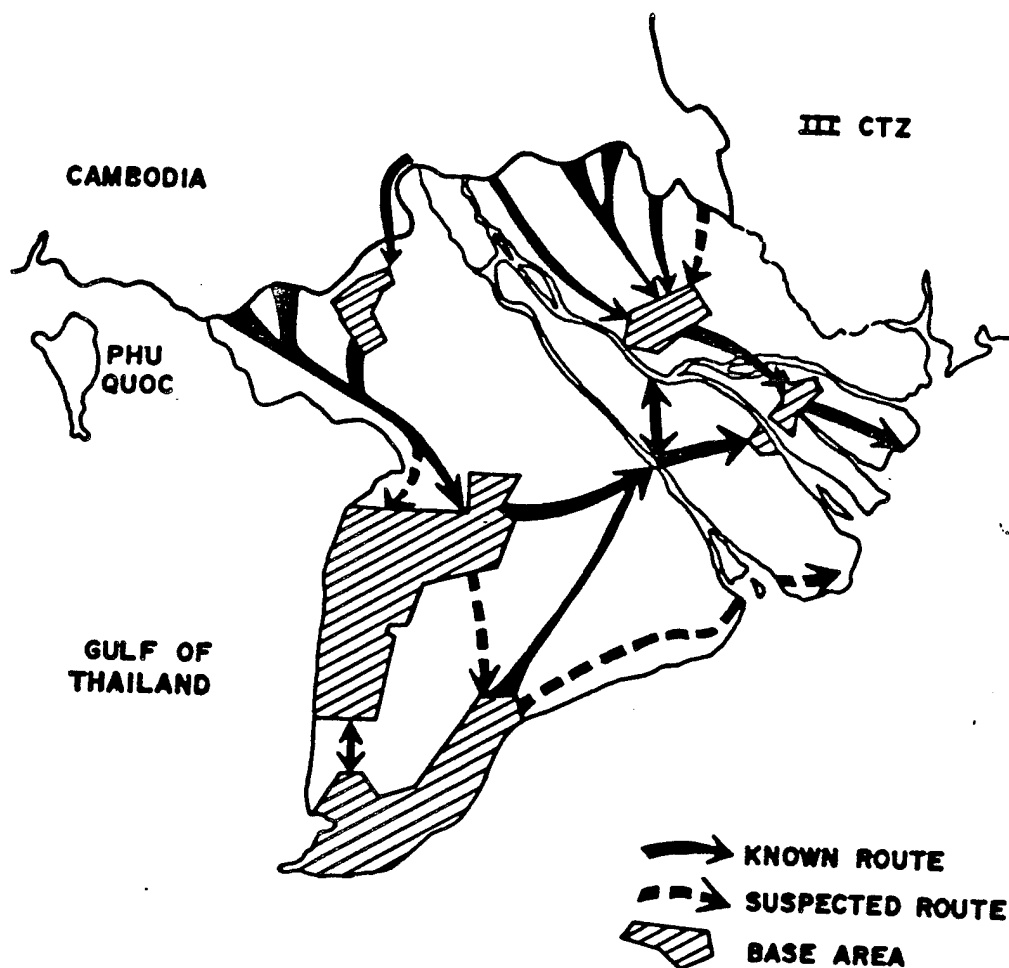


Fig. 16. Enemy Resupply in IV CTZ. From Department of the Navy, Operations Analysis Branch, An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot (San Diego, CA: Navy Electronics Laboratory Center, July 1970), II-1.

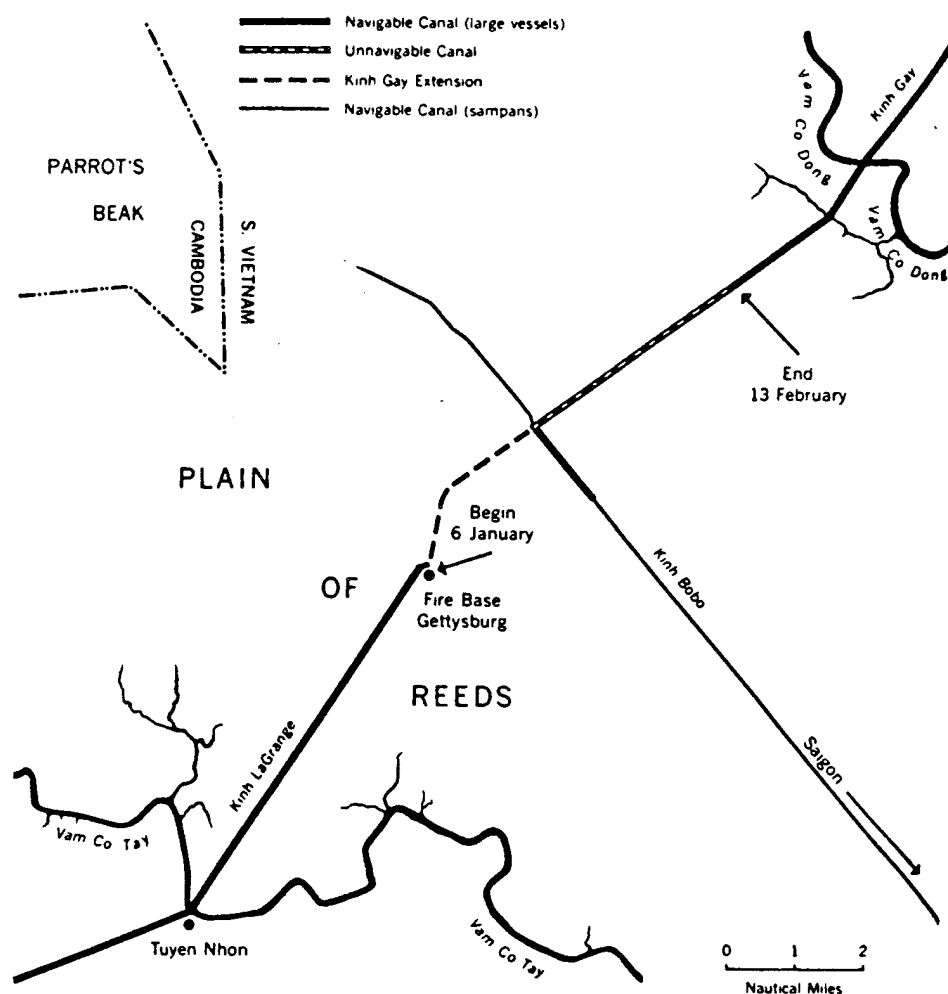
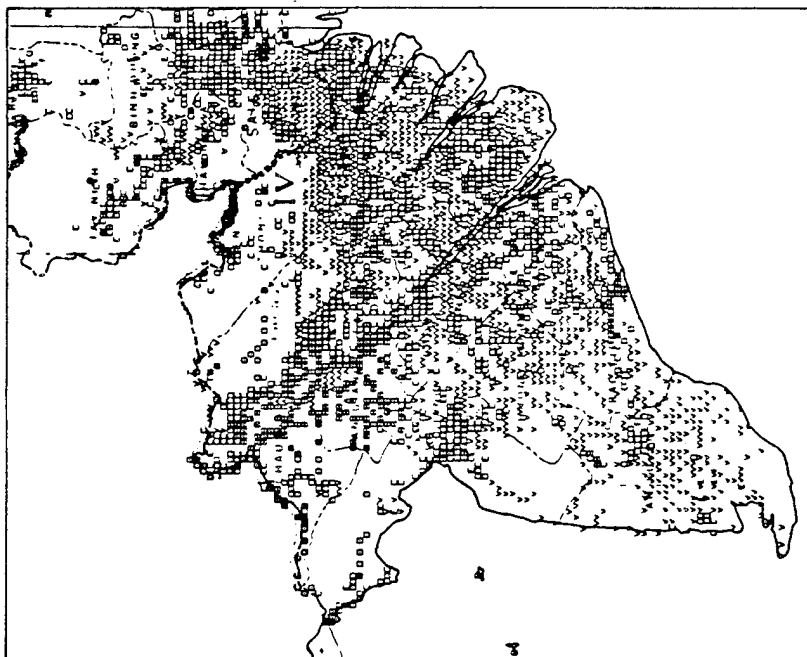
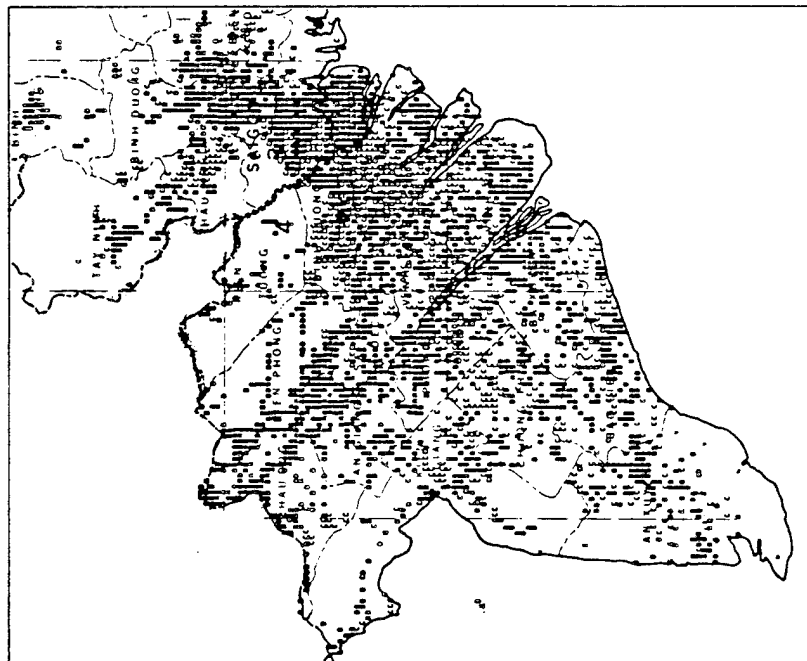


Fig. 17. Operation Deep Channel Waterways. From James M. Howard III, "Operation Deep Channel," U.S. Naval Institute Proceedings 97 (August 1971: 39-49), 40.



A tactical map of the Mekong Delta for a people's war: this map shows the hamlet evaluation system results for October 1967. The 'V's denote communities judged to be under Viet Cong control, and there are many.



Pacification changes the countryside: this map shows the hamlet evaluation system results for July 1971. The better grades of A, B, and C have replaced almost all of the 'V's, showing how Viet Cong power has been replaced by secure communities.

Fig. 18. Hamlet Evaluation System Results. From William Egan Colby, *Lost Victory: A Firsthand Account of America's Sixteen-Year Involvement in Vietnam* (Chicago: Contemporary Books, 1989), 420-421.

BIBLIOGRAPHY

Government Documents

- Bauman, G. E. "Vietnam Swimmer and River Mining Incident Tabulation (Fiscal Year 1971 Supplement)." Panama City, FL: Naval Ship Research and Development Lab, January 1972.
- Commander Task Force 116 Operation Order (COMRIVPATFOR No. 201-YR), Can Tho, Vietnam, 1 February 1967.
- Commander Task Force 117 Operation Order (CTF 117 OPORD No. 201-YR), USS BENEWAH, Flagship, Message Ref: 150001H May 68.
- Department of the Army. Army Concept Team in Vietnam. Military Police River/Harbor Security Company (ACTIV Project No. ACG-73F). Army Combat Developments and Material Evaluation Program, APO San Francisco, April 1971.
- _____. Commander U.S. Military Assistance Command, Vietnam. U.S. MACV ARVN/Marine and Naval Forces Advisory Report, 1st Qtr, CY69. APO San Francisco, CA: June 1969.
- _____. Combat After Action Report-Operation River Raider I, 5 April 1968.
- _____. Combat Developments Command Operational Report - Lessons Learned. Fort Belvoir, VA: November 1969.
- _____. Office of the Adjutant General. Senior Officer Debriefing Report, Commanding General, 9th Infantry Division, USARV, 1 June 1967-25 February 1968. Washington, DC: 14 March 1968.
- Department of the Navy. Commander Naval Amphibious School Coronado. Patrol Boat River (PBR) Operational Evaluation: Report Of. San Diego, CA: 1966.
- _____. Commander U.S. Naval Forces Vietnam, Commander Naval Advisory Group Activities. Historical Review for December 1965. San Diego, CA: December 1965.
- _____. Forward ...From The Sea. Washington, DC: April, 1995.
- _____. Monthly Historical Summaries and Supplements. Washington, DC: Naval Historical Center, 1965-1971.

- _____. Forward ...From The Sea. Washington, DC, April 1995.
- _____. Operations Analysis Branch. An Analysis of Interdiction Barrier Operations and Effectiveness on SEALORDS Operations Tran Hung Dao, Barrier Reef and Giant Slingshot. San Diego, CA: Navy Electronics Laboratory Center, July 1970.
- _____. Marine Police Resources Control on the Mekong-Bassac River Complex. China Lake, CA: Naval Weapons Center, November 1969.
- _____. Mine Countermeasures Requirements of the Republic of Vietnam. Panama City, FL: Naval Ship Research and Development Laboratory, March 1970.
- _____. Progress Appraisal Division. Effects of the Termination of Dedicated Air Support on VNN Game Warden Operations. Johnsville, PA: Naval Air Development Center, October 1970.
- _____. Operations Evaluation Group. "Game Warden." Arlington, VA: Center for Naval Analysis, 1976.
- Mintz, J. "Game Warden, Mobile Riverine Force and Revolutionary Development Operations in the Delta," INS Research Contribution No. 26 (AD 500 967). Washington, DC: Institute of Naval Studies, Center for Naval Analysis, June 1968.
- Schreadley, Richard L. "The Naval War in Vietnam." Saigon: Commander Naval Forces Vietnam, 1 May 1970.
- Smith, D. F., C. W. Erickson, D. L. Blount, and J. C. Franklin. "Report on U.S. Navy Combat Craft Operations, Vietnam." Annapolis, MD: Naval Ship Research and Development Laboratory, February 1969.
- Sigmond, Arie C. A. "Operation 'Giant Slingshot.'" Prepared by Sigmond and members of his staff while serving with Commander Naval Forces, Vietnam. No date provided.

Books

- Andrade, Dale. Ashes to Ashes: the Phoenix Program and the Vietnam War. Lexington, Mass.: Lexington Books, 1990.
- Bosiljevac, T. L. SEALs: UDT/SEAL Operations in Vietnam. New York: Ivy Books, 1990.
- Bowers, Ray L. Tactical Airlift: The United States Air Force in Southeast Asia. Washington, DC: United States Air Force, Office of Air Force History, 1983.

- Chinnery, Philip D. Vietnam: the Helicopter War. Annapolis, MD: Naval Institute Press, 1991.
- Colby, William Egan. Lost Victory: A Firsthand Account of America's Sixteen-Year Involvement in Vietnam. Chicago: Contemporary Books, 1989.
- Croizat, Victor. The Brown Water Navy: The River and Coastal War in Indo-China and Vietnam, 1948-1972. Dorset, England: Blanford Press, 1984.
- Currey, Cecil B. ("Cincinnatus"). Self-Destruction: The Disintegration and Decay of the United States Army During the Vietnam Era. New York: W. W. Norton, 1981.
- Cutler, Thomas J. Brown Water, Black Berets: Coastal and Riverine Warfare in Vietnam. Annapolis, MD: Naval Institute Press, 1988.
- Davidson, Phillip B. Vietnam at War: the History, 1946-1975. London, England: Sidgwick & Jackson, 1988.
- Deibel, Terry L. and John Lewis Gaddis, eds. Containment, Concept and Policy. Washington, DC: National Defense University Press, 1986.
- Fall, Bernard B. Hell in a Very Small Place: the Siege of Dien Bien Phu. New York: Lippincott, 1967.
- _____. Street Without Joy. London, England: Pall Mall Press, 1964.
- Friedman, Norman. U.S. Small Combatants. Annapolis, MD: Naval Institute Press, 1987.
- Fulton, William B. Vietnam Studies: Riverine Operations 1966-1969. Washington, DC: Department of the Army, 1973.
- Gettleman, Marvin E. Vietnam: History, Documents, and Opinions. New York: New American Library, 1970.
- _____; Jane Franklin, Marilyn Young, H. Bruce Franklin. Vietnam and America: A Documented History. New York: Grove Press, Inc., 1985.
- Hooper, Edwin Bickford. Mobility, Support, Endurance: A Story of Naval Operational Logistics in the Vietnam War, 1965-1968. Washington, DC: Naval Historical Center, Department of the Navy, 1972.
- Karnow, Stanley. Vietnam: A History. New York: Viking Press, 1983.
- Komer, Robert W. Bureaucracy at War: U.S. Performance in the Vietnam Conflict. Boulder, Colorado: Westview Press, 1986.

- Love, Robert William, Jr. ed. Changing Interpretations and New Sources in Naval History. New York: Garland Publishing, 1980.
- Luce, Don, and John Sommer. Viet Nam: The Unheard Voices. Ithaca, NY: Cornell University Press, 1969.
- Marolda, Edward J. By Sea, Air, and Land: An Illustrated History of the U.S. Navy and the War in Southeast Asia. Washington, DC: Naval Historical Center, Department of the Navy, 1994.
- _____; Oscar P. Fitzgerald. The U.S. Navy and the Vietnam Conflict. Washington, DC: Naval Historical Center, Department of the Navy, 1986.
- _____, and G. Wesley Price III. A Short History of the United States Navy and the Southeast Asian Conflict 1950-1975. Washington, DC: Naval Historical Center, Department of the Navy, 1984.
- O'Neill, Robert J. General Giap: Politician and Strategist. New York: Praeger, 1969.
- Palmer, Dave Richard. Summons of the Trumpet: U.S.- Vietnam in Perspective. Novato, CA: Presidio Press, 1978.
- Porter, Gareth, ed. Vietnam: A History in Documents. New York: New American Library, 1979.
- Riverine Warfare: The U.S. Navy's Operations on Inland Waters. Rev. ed. Washington, DC: Naval Historical Center, Navy Department, 1969.
- Santoli, Al. Everything We Had: An Oral History of the Vietnam War by Thirty-Three American Soldiers Who Fought It. New York: Ballantine Books, 1982.
- Schreadley, R. L. From the Rivers to the Sea: The United States Navy in Vietnam. Annapolis, MD: Naval Institute Press, 1992.
- Sharp, U. S. G. Strategy for Defeat: Vietnam in Retrospect. Novato, CA: Presidio Press, 1978.
- Sheehan, Neil, et al. The Pentagon Papers. New York: Bantam, 1971.
- Sheppard, Don. Riverine: A Brown Water Sailor in the Delta, 1967. Novato, CA: Presidio Press, 1992.
- Shore, Moyers S. The Battle for Khe Sanh. Washington, DC: Historical Branch, Headquarters U.S. Marine Corps, 1969.

- Smyth, Cecil B., Jr. United States Coastal and River Forces in Vietnam. Columbia, MD: American Society of Military Insignia Collectors, 1985.
- Spector, Ronald H. Advice and Support: The Early Years: The U.S. Army in Vietnam, , 1941-1960. Washington, DC: United States Army Center for Military History, 1983.
- Summers, Harry G., Jr. On Strategy: A Critical Analysis of the Vietnam War. Novato, CA: Presidio Press, 1982.
- Tidman, Keith R. The Operations Evaluation Group: A History of Naval Operations Analysis. Annapolis, MD: Naval Institute Press, 1984.
- Thompson, Julian. The Lifeblood of War. New York: Macmillan Publishing Company, 1991.
- Thompson, Robert Grainger Ker, Sir. Peace is not at Hand. New York: McKay, 1974.
- Uhlig, Frank, Jr., ed. Vietnam: The Naval Story. Annapolis, MD: Naval Institute Press, 1986.
- U.S. Department of State, Office of Media Services. A Threat to the Peace: North Viet-Nam's Effort to Conquer South Viet-Nam. Washington, DC: U.S. Government Printing Office, December 1961.
- _____. Aggression from the North: The Record of North Viet-Nam's Campaign to Conquer South Viet-Nam. Washington, DC: U.S. Government Printing Office, 1965.
- Vien, Cao Van. Reflections on the Vietnam War: Indochina Monographs. Washington, DC: United States Army Center for Military History, 1984.
- Vo, Nguyen Giap. How We Won the War. Philadelphia, PA: RECON Publications, 1976.
- _____. People's War, People's Army. New York: Fredrick A. Praeger, 1962.
- _____. People's War, People's Army: The Viet Cong Insurrection Manual for Underdeveloped Countries. New York: Fredrick A. Praeger, 1962.
- Westmoreland, William C. A Soldier Reports. Garden City, NY: Doubleday & Company, Inc., 1976.
- Zumwalt, Elmo R., Jr. On Watch: A Memoir. New York: Quadrangle/The New York Times Book Company, 1976.

Periodicals and Articles

- Abel, Christopher A. "Forgotten Lessons of Riverine Warfare." U.S. Naval Institute Proceedings 108 (January 1982): 64-68.
- Baker, John W. and Lee C. Dickson. "Army Forces in Riverine Operations." Military Review 47 (August 1967): 64-74.
- Bucklew, Phil H. "Navy Small Craft in Market Time." Naval Engineers Journal June 1966, 395-402.
- Carrison, Daniel J. "Riverine Warfare: A Forgotten Capability Redeveloped." Data 13 (December 1968): 29-31.
- Chapelle, Dickey. "Water War in Viet Nam." National Geographic February 1966, 270-296.
- Conn, Virginia. "The Brown Water Navy." Navy 12 (March 1969): 18-22.
- Corbett, David A. "Mobile Riverine Force." Military Engineer 60 (November-December 1968): 421-422.
- Cowan, William V. "Killer Forest." Marine Corps Gazette 54 (August 1970): 31-34.
- Cracknell, William H., Jr. "The Role of the U.S. Navy in Inshore Waters." Thesis, Naval War College, 1968. In Naval War College Review 21 (November 1968): 65-91.
- Croizat, Victor J. COL (Ret). "Naval Forces in River War." U.S. Naval Institute Proceedings 92 (October 1966): 52-61.
- Dagle, Dan. "The Mobile Riverine Force, Vietnam." U.S. Naval Institute Proceedings 95 (January 1969): 126-128.
- Dodd, Dan. "The Mobile Riverine Force." U.S. Naval Institute Proceedings 95 (June 1969): 80-95.
- Ebersole, J. F. "Skimmer Ops." U.S. Naval Institute Proceedings 100 (July 1974): 40-46.
- Emery, Thomas R. M. "River Power." U.S. Naval Institute Proceedings 96 (August 1970): 117-121.
- Fulton, William B. "Mobile Riverine Force in Combat." Field Artilleryman 43 (April 1969): 15-28.
- Funderburk, Raymond E. "Warfare in the Delta." Infantry 58 (March-April 1968): 41-42.
- Green, Bill. "Forged Under Fire." Surface Warfare November 1980, 2-7.

- Green, William J., Jr. "River Gunfire Support Ship." U.S. Naval Institute Proceedings 93 (October 1967): 135-136.
- Horowitz, C. L. "Comment and Discussion." U.S. Naval Institute Proceedings 95 (November 1969): 116-118.
- Howard, James M., III. "Operation Deep Channel." U.S. Naval Institute Proceedings 97 (August 1971): 39-49.
- Kolbenschlag, George R. "Minesweeping on the Long Tau River." U.S. Naval Institute Proceedings 93 (June 1967): 88-102.
- Loomis, William. "New Missiles and a Try at Barriers in Vietnam." Data 13 (September 1968): 13-15.
- Marolda, Edward J. "The War in Vietnam's Shallows." Naval History 1 (April 1987): 12-19.
- McDonald, Scott. "Riverine Warfare: How Services Are Meeting The Delta Test." Armed Forces Management 14 (May 1968): 42-46.
- McClintic, Robert G. "The River War in Indochina." U.S. Naval Institute Proceedings 80 (December 1954): 1303-1311.
- _____. "Vietnam Breeds New Concept of Warfare 'Riverine'." Journal of Armed Forces 103 (30 April 1966): 1.
- Mustin, Thomas M., LT. "The River War." Ordnance 53 (Sept-Oct 1968): 176-178.
- Powers, Robert C. "Beans and Bullets for Sea Lords." U.S. Naval Institute Proceedings 96 (December 1970): 95-97.
- Reiling, Victor G., and G. W. Scott. "Psychological Operations in Vietnam." U.S. Naval Institute Proceedings 94 (July 1968): 122-126.
- Riggs, Jerry. "U.S. Minesweeping Boats Keep Clear the River to Saigon." Navy Magazine May 1967, 15-18.
- Robinette, Hillary M. "Guerilla Warfare and Waterway Control." Military Review 50 (December 1970): 95-97.
- Schreadley, Richard L. "The Naval War in Vietnam 1950-1970." Naval Review May 1971, 180-209.
- _____. "'Nothing to Report,' a Day on the Vam Co Tay." U.S. Naval Institute Proceedings 96 (December 1970): 23-27.
- _____. "SEA LORDS." U.S. Naval Institute Proceedings 96 (August 1970): 22-31.

- Sheehan, Daniel B. "The Black Ponies." U.S. Naval Institute Proceedings 114 (April 1988): 84-88.
- Simpson, Thomas H., and David La. Boissiere. "Fire Support in Riverine Operations." Marine Corps Gazette 53 (August 1969): 43-47.
- Slaff, Allan P. "Naval Advisor Vietnam." U.S. Naval Institute Proceedings 95 (April 1969): 38-44.
- Smith, Albert C. "Rung Sat Special Zone, Vietnam's Mekong Delta." U.S. Naval Institute Proceedings 94 (April 1968): 116-121.
- Spore, John B. "Floating Assault Force: Scourge of the Mekong Delta." Army 18 (February 1968): 28-32.
- Stephens, Melville L. "Comment and Discussion." U.S. Naval Institute Proceedings 95 (November 1969): 115-116.
- Storck, T. S. "PBRs Thwart Viet Cong on Delta Waterways." Our Navy 63 (April 1968): 38-39.
- Swanson, Leroy V. "Market Time-Game Warden: The Navy in Vietnam." Naval Engineers Journal June 1966, 391-394.
- Swarztrauber, S. A. "River Patrol Relearned." Naval Review May 1970, 120-157.
- Wells, W. C. "The Riverine Force in Action, 1966-1967." Naval Review May 1969, 46-83.
- Weseleskey, A. E. "The 'Seawolf' Helo Pilots of Vietnam." U.S. Naval Institute Proceedings 94 (May 1968): 128-130.
- White, Jack M. "ACTOV-The U.S. Navy's Accelerated Turnover Program." U.S. Naval Institute Proceedings 96 (February 1970): 112-113.
- White, Michael E. "Vietnamese Riverine Forces Taking Up The Slack." Marine Corps Gazette 53 (December 1969): 41-42.
- White, Peter T. "The Mekong: River of Terror and Hope." National Geographic December 1968, 737-787.
- Wright, John M. Jr. "Commandant's Notes (Mobile Riverine Force)." Infantry 58 (March-April 1968): 27.

Unpublished Documents

- Dunnavent, Blake. "SEALORDS: The Riverine Interdiction Campaign in Vietnam." Master of Arts. Thesis, Texas Tech University, 1992.

Patterson, W. C., Jr. "Riverine/Inshore Warfare (A Selected, Annotated Bibliography.)" Columbus, OH: Battelle Memorial Institute, March 1970.

Tindall, John W. "Joint Operations and the Vicksburg Campaign." Master of Military Art and Science. Thesis, US Army Command and General Staff College, 1993.

Video Recordings

United States Army. Chopper Wars. Karl James Associates, 1988.

_____. Riverine Warfare: Airmobile Operations. Nashville, TN: Cumberland Marketing International, Inc., 1970.

_____. The Vietnam War: Helicopter and Airmobility. Cav Video Productions, June 1990.

United States Navy. River Patrol: The Small Boat Navy. Nashville, TN: Cumberland Marketing International, Inc., 1968.

Oral Histories

Thoai, Ho Van Ky (Commodore, Vietnamese Navy). Interview by Oscar P. Fitzgerald, 20 September 1975. Tape recording and transcript. Naval Historical Center, Washington, DC.

Interviews by Author

Maj James Emmerson, U.S. Marine Corps, interview by author, telephone, Fort Leavenworth, Kansas, 26 April 1995.

LCDR Al Oshirack, U.S. Navy, interview by author, telephone, Fort Leavenworth, Kansas, 26 April 1995.

Major Mike Spight, U.S. Army, interview by author, personal, Fort Leavenworth, Kansas, 26 April 1995.

INITIAL DISTRIBUTION LIST

1. Combined Arms Research Library
U.S. Army Command and General Staff College
Fort Leavenworth, KS 66027-6900
2. Defense Technical Information Center
Cameron Station
Alexandria, VA 22314
3. Naval War College Library
Hewitt Hall
U.S. Navy War College
Newport, RI 02841-5010
4. Dr. Gary J. Bjorge
CSI
USACGSC
Fort Leavenworth, KS 66027-1853
5. CAPT Thom W. Ford, USN
U.S. Navy Section
USACGSC
Fort Leavenworth, KS 66027-1853
6. LTC John D. Vosilus, USA
CTAC
USACGSC
Fort Leavenworth, KS 66027-1853
7. Dr. Edward J. Marolda
Contemporary History Branch
Naval History Center
Department of the Navy
901 M Street, SE
Washington, DC 20374-5060
8. MAJ Lloyd Hamashin, USMC
N37
Naval Doctrine Command
8952 First Street, Suite 200
Norfolk, VA 23511-3790